

ATLANTIC FISHERMAN

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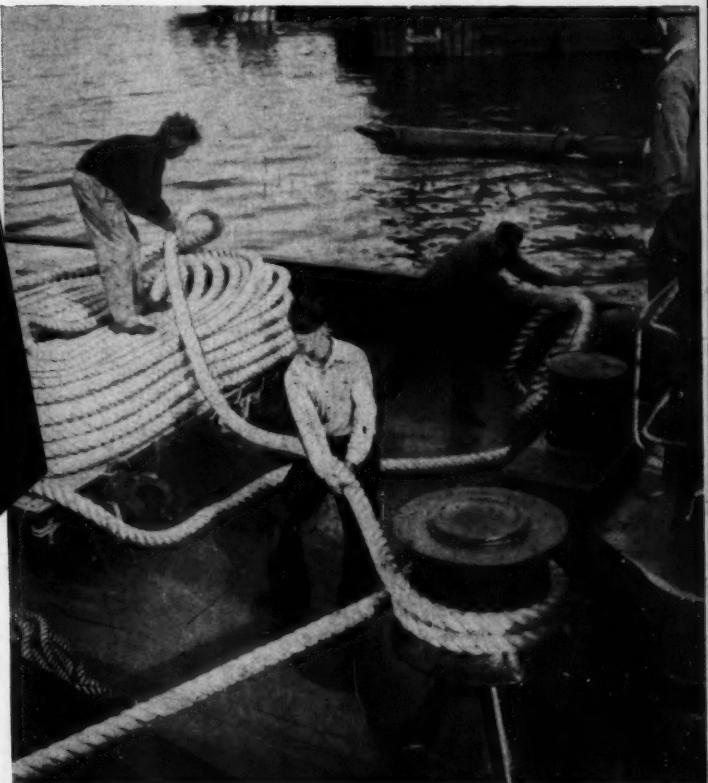
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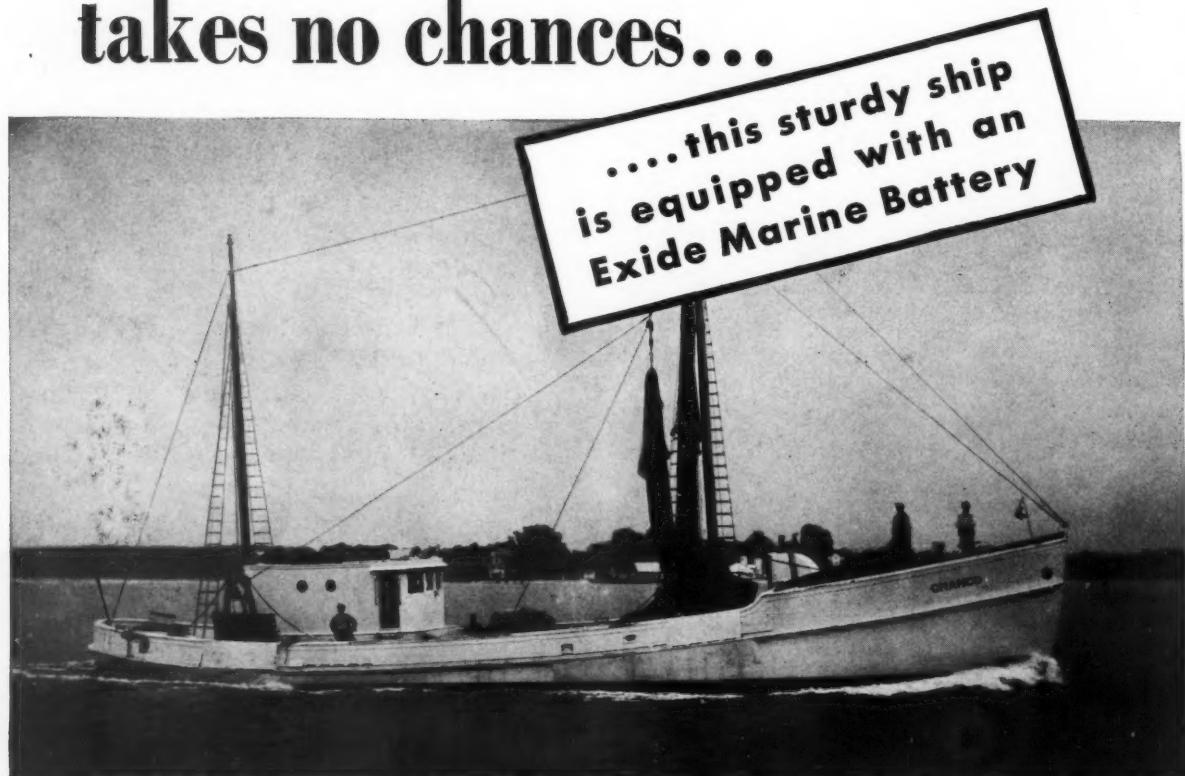
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COLUMBIAN ROPE COMPANY
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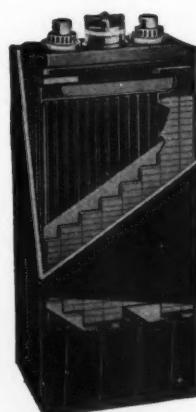


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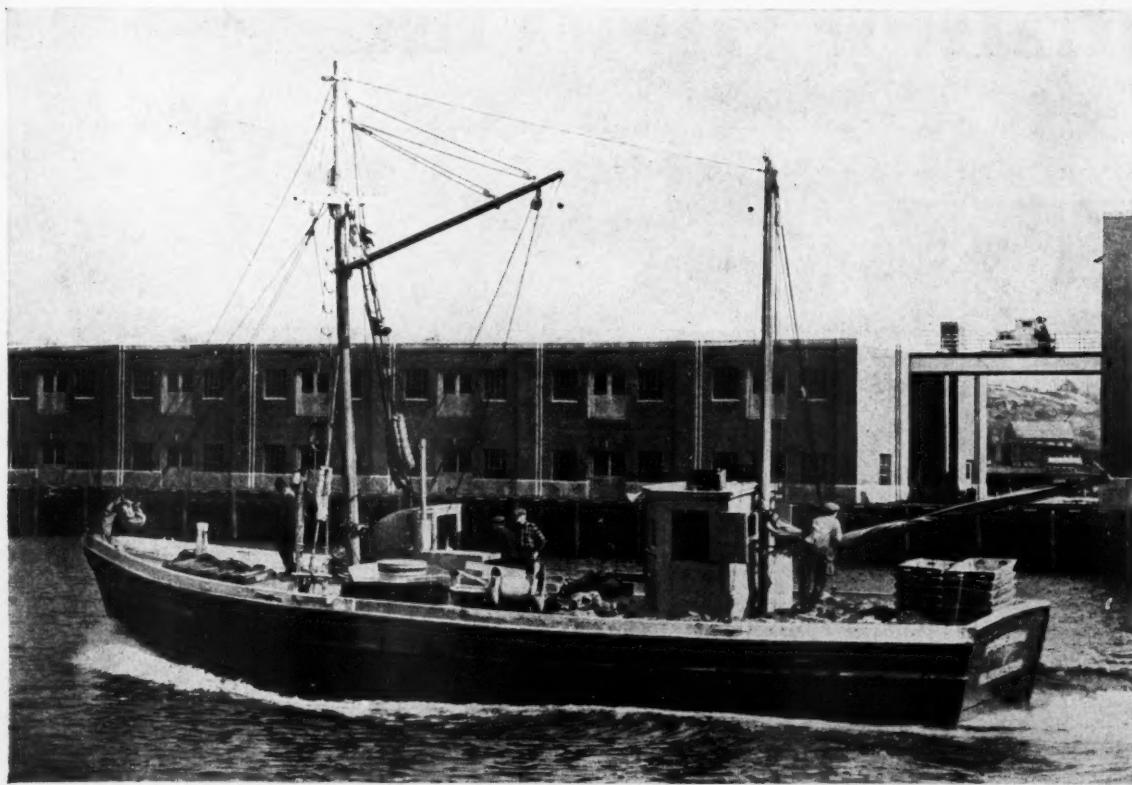
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Trawler "Chanco" of Yorktown, Va. She was built by the Salisbury Yacht Building Company, Salisbury, Md., for W. T. Ashe. She is equipped with a 16-cell Exide-Ironclad Marine Battery.



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POSEIDON

54-foot Gloucester Fisherman

BUILDER

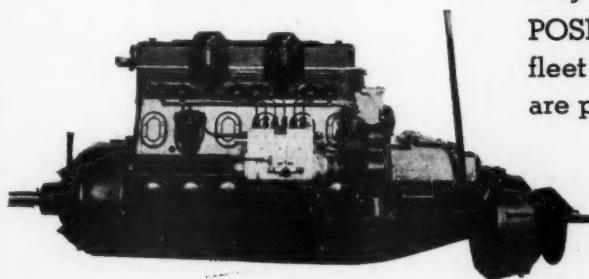
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POWER

SUPERIOR DIESEL, Model MRA-6S,
6 cylinders, $4\frac{1}{2} \times 5\frac{3}{4}$ —100 H. P.

OWNER

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In ever-increasing numbers, fishermen of New England are turning to SUPERIOR Diesels for safe, dependable and economical power.

There is no more certain step toward increased profits per trip than to install a SUPERIOR Diesel, whether it be a two-cylinder 25 H. P. high speed model or one of the eight-cylinder 1000 H. P. heavy duty models.

POSEIDON is a fine example of the vast fleet of commercial year-round boats which are powered with this famous engine.

*You have 24 models
from which to choose.*

THE NATIONAL SUPPLY COMPANY . . . SUPERIOR ENGINE DIVISION

FACTORIES: Springfield, Ohio; Philadelphia, Pa.

SALES OFFICES: Springfield, Ohio; Philadelphia, Pa.; New York, N. Y.; Los Angeles, Calif.; Houston, Texas.

BETHANIZED TRAWLER LINE

for Better service
at Lower cost



Bethanized trawler line has the full toughness of bright rope plus the full protection against corrosion of the finest galvanized rope.

This new type of rope is made by an entirely different process. In a bethanized trawler line the wires are zinc coated by a patented electrical process. The steel has the same toughness before and after coating. The bethanized coating is uniform in thickness in mile after mile of wire. There is no weakness in the steel for fatigue to get an early start; no weakness in the coating where corrosion can set in.

Numerous bethanized trawler lines have been in use. The service reports are all excellent. We know that if you will try a line, compare the service against the cost, you will find that bethanized trawler line is the most economical you have ever used. Detailed information can be secured from your marine distributor, or from Bethlehem Steel Company, Bethlehem, Pa.



BETHLEHEM STEEL COMPANY

"Your engines are really Built for Work"



Mayport, Florida
April 23, 1939

Caterpillar Tractor Co.
Peoria, Illinois

Gentlemen:

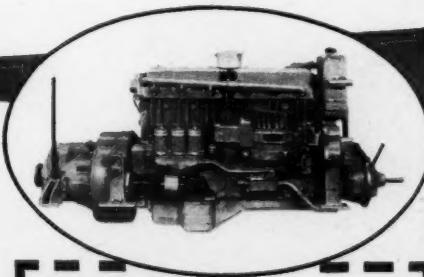
Your Marine Diesel Engines certainly solve the problem for dependable, economical power for fishing boats. I have just recently installed a D13000 in my "Miss Susie" and must say that its performance is far beyond anything I have seen in a fishing boat yet.

When first considering a "Caterpillar" D13000 I went into its design and construction pretty thoroughly. It didn't take long for me to realize that your engines are really built for work.

My D13000 drives a 42 x 30 wheel, bilge pump, deck pump, lighting generator, haul-out winch, etc., and I find it plenty powerful. It is satisfactory in every way and I cannot say too much about its economy and dependability.

Very truly yours,

(signed) Jack G. Carinhas



• A "Caterpillar" Diesel D13000 Marine Engine. This is the type installed in Mr. Jack G. Carinhas' Miss Susie. Five sizes of "Caterpillar" Diesel Marine Engines offer a range of 35 to 135 brake horsepower (continuous rating).

CATERPILLAR TRACTOR CO.
Dept. AF-10, Peoria, Illinois

Gentlemen: Please send me further information about the "Caterpillar" Diesel Marine Engines.

State Size of Boat _____ Propeller _____

Size of Present Engine _____

Name _____

Address _____

CATERPILLAR TRACTOR CO., PEORIA, ILL.

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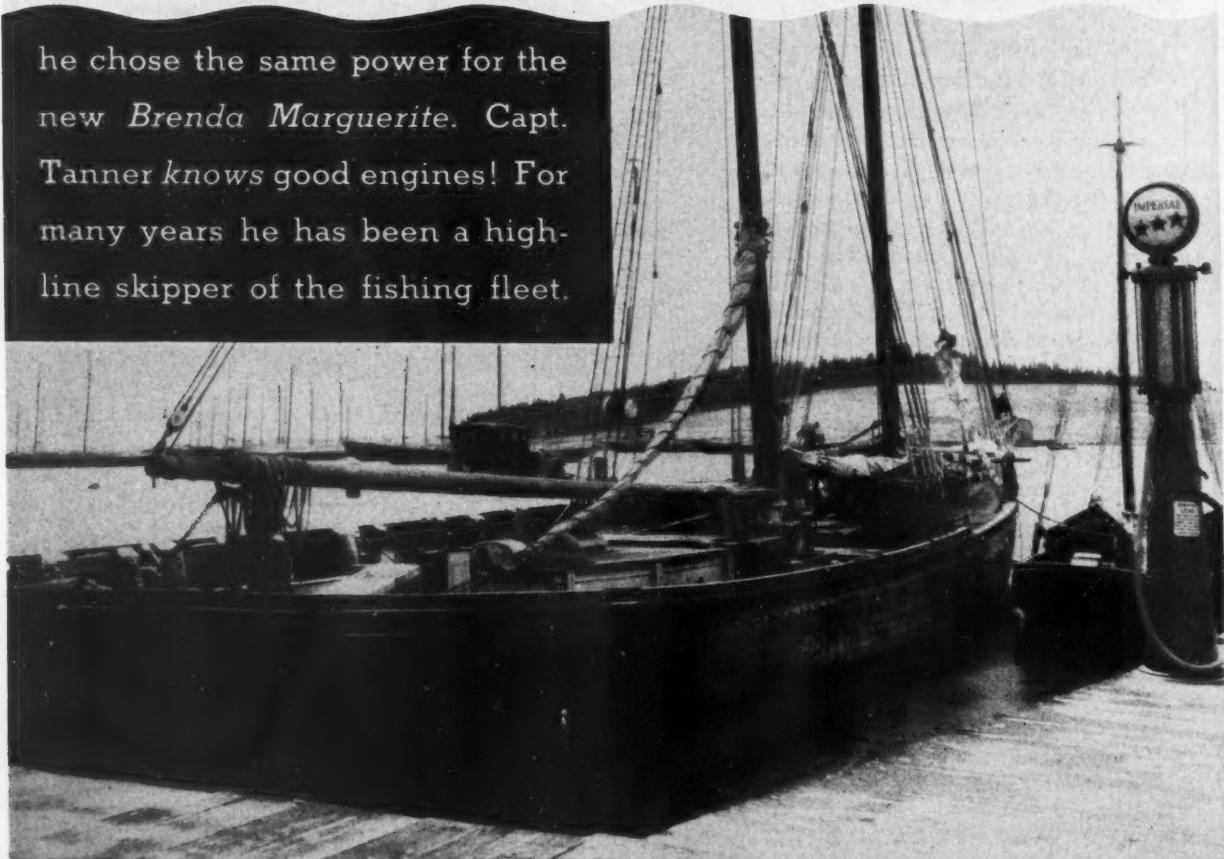
DIESEL ENGINES • DIESEL-ELECTRIC SETS

ELEVEN YEARS of continuous operation, winter and summer, is the history of the pair of Cooper-Bessemer Diesels that drive the *Marguerite B. Tanner*. So well pleased is Capt. Tanner with the RELIABILITY and ECONOMY of Cooper-Bessemer Diesels, that

ONE C-B DIESEL LEADS TO ANOTHER!

he chose the same power for the new *Brenda Marguerite*. Capt. Tanner knows good engines! For many years he has been a high-line skipper of the fishing fleet.

LUNENBURG, N. S.—Cooper-Bessemer Diesels power both of Capt. Angus Tanner's boats. *Marguerite B. Tanner* (shown) carries a pair of Type E 3-cylinder marine-gear Diesels. The new *Brenda Marguerite* carries a Type GN 6-cylinder 260 hp direct-reversing Diesel.



THE COOPER-BESSEMER CORPORATION

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The Pacific Marine Supply Co., Seattle, Washington

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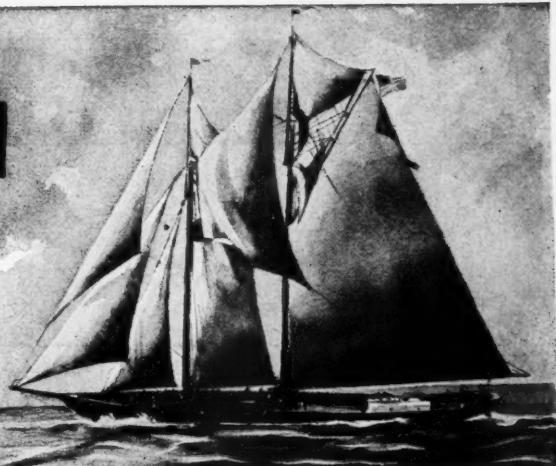
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Covering the Production, Processing and Distribution of Fresh, Frozen, Filleted, Canned, Dried, Smoked, Salted and Packaged Fish and Shellfish.



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Viewing the Effect of the War on our Fisheries

SEA and Shore Fisheries Commissioner Arthur R. Greenleaf sees good times ahead for Maine fishermen as a result of the European war. Cutting down of Canadian imports due to a great demand for fish products from England should bring higher prices for domestic seafoods, and definitely prove that the reciprocal treaties are harmful to our fisheries, he says.

Declaring that he had received information that England was buying vast quantities of canned, processed and frozen seafoods Greenleaf believes that all branches of the industry in Maine will benefit.

A decided pick-up is already being noticed and should continue indefinitely.

The sardine market should be especially improved as the enormous Norwegian shipments into this country must necessarily be decreased. Lobsters and fillets are other items which will be greatly affected.

There is a possibility of many new processing plants opening along the Maine coast to supply the demand, and both fishermen and dealers will share in the increased profits.

Reduced Imports

The Linen Thread Company, in a bulletin, states: "War is abhorrent. War ought not to be necessary. In the long run it gives even neutrals more losses than gains. Many important items of daily need are drastically affected by war's restrictions on international trade, throwing out existing balances of supply and demand.

"The war now being waged in Europe will undoubtedly have effect on domestic prices of fish. We have been importing very considerable quantities of seafoods in many varieties. These imports had a direct bearing on fish prices generally. Imports will be drastically reduced in quantities because of the war. What does come in will probably be considered higher in price because of the scarcity and because of the increased costs. Shortage of ship bottoms and high war-risk insurance will be powerful factors.

"Probably imports from European countries will grow so small, if war continues, as to cease to be a factor except as their absence will advance the price of other fish in supply. Canada, that has shipped huge quantities into our markets, has recently put a partial embargo on shipments of her fish to other than the British Empire, which will probably require all that Canada can supply. This action in itself sharply reduces the probable imports here and should increase our markets.

"Since our fisheries have suffered so severely in recent years from low priced imports, it may be expected that our fish will soon bring prices nearer to what they are worth.

"None of us like to think that it takes a war to give our fishermen a chance in their own home market."

Oyster Industry

Fears that its European trade, involving approximately 8,000 barrels of oysters a year, will be lost to Long Island's great oyster industry this year, due to the current war, were expressed at West Sayville by Joseph Glancy, Director of Research for the Bluepoints Company. Last year, Mr. Glancy explained, Great South Bay shipped oysters valued at approximately \$80,000 to England and Belgium, with British concerns buying the largest part.

Mr. Glancy declared that the Neutrality Act, does not contain an embargo against foodstuffs such as oysters, but only bars the shipment of arms and ammunition. However, he added, it is extremely unlikely that in the event British ships are permitted to come here to purchase food they will reserve any great amount of space for such cargo as oysters, which are considered a luxury in England. It is likely that the British will be far more concerned with shipping sugar and grain.

In admitting that the foreign outlook is black, as far as the oyster industry is concerned, the Bluepoints Co. official pointed out that in the last war efforts to maintain a foreign oyster trade were complete failures. The Company lost one large shipment when the *Lusitania* was sunk and from then until the final day of action European trade was at a standstill.

The English trade has always been good due to the fact that the British are extremely fond of our oysters, some of which are shipped in the Spring and planted in English waters. Great South Bay oysters are cheaper for the average Englishman than the British oyster, their quality is better and they remain fresher in transit. The English supply has never been adequate.

Mr. Glancy seemed hopeful that Belgium will take some of the foreign oyster trade this year, and help make up for the anticipated loss of England's business.

Canned Seafood

We hope the war will be terminated at an early date. But, if not, great quantities of canned goods, including seafood, will be wanted for millions of men under arms, and the demand will come quickly, because organizing adequate food supplies for the fighting men and civilian population is now recognized as a most essential part of any war program.

Reciprocal Treaties

The American fisheries do not want war, but they do want a revision of reciprocal trade treaties which threaten the prosperity of the industry. Especially is New England's position endangered by the great increase in imports of fillets, and other fresh, frozen and canned products, as well as salted, dried and pickled. One effect of the war may be to show that our fisheries are harmed by reciprocal treaties, and that our fishermen should have a chance in their own home markets.

Smoking Can Increase Oyster Market

Experiments Carried out by P. A. Sunderland, Pacific Fisheries Experimental Station, Prince Rupert, B. C.

THE oyster industry of British Columbia achieved considerable importance during the past ten years. Three species of oysters are under cultivation in this province — the small but tasty native (Olympia) oyster which is particularly in demand for "cocktails"; the introduced Eastern (Bluepoint) oyster used extensively in the fresh state in soups or stews, for frying, and in the half-shell; and the introduced Japanese (Pacific) oyster also used fresh in soups and stews, for frying and to some extent in the half shell. The cultivation of these varieties has been the subject of intensive investigations by the Pacific Biological Station.

Fresh oysters are marketed in glass jars, sealed tins and at times in waxed paper cups for local trade. Canned oysters have been supplemented by the introduction of canned oyster soup and oyster stew which have also enjoyed great popularity. Valuable research work on the chilling and freezing of oysters has been carried out at the Atlantic Biological Station and by the scientists of the U. S. Bureau of Fisheries. It was found that oysters freeze at temperatures between 31°F. and 29°F. and that when frozen in closed containers in brine at 0°F. and in air at -25°F. they appeared to be in good condition when thawed after six weeks, and kept fresh for about five days.

Smoked Oysters

Two or three years ago there appeared in the retail market in Canada canned smoked oysters from Japan. These were packed in a salad oil in 1/4-pound drawn oblong sardine cans. This product was of a dark brown color and not at all attractive in appearance. The idea occurred to the Research Department of the American Can Company in Portland, Oregon, that this type of product might be an outlet for Pacific coast oysters. They obtained fresh oysters from the Willapa Bay district in the State of Washington, and as a result of their experiment two or three canners in the area referred to placed canned smoked oysters on the market. Although the imported Japanese product had developed considerable importance in the specialty trade on this coast, the American article has generally been recognized as possessing a better quality, with a more pleasing flavor and appearance. The improvement in flavor no doubt is partly due to the fact that the crab-apple wood used in the American smoking process is recognized as producing excellent flavors.

At the request of a British Columbia firm the writer carried out some experiments in the smoking and canning of Pacific oysters, using the controlled smokehouse installed at this Station last year, and designed principally for cold smoking of fishery products such as kippered herring and fish fillets. A fine smoked flavor could be imparted to oysters in a very short time when they were smoked at temperatures between 70° and 80°F. but a sufficiently brown color could not be produced. A higher temperature was required to develop the desirable color and also to dehydrate them to such a degree that the final product would appear attractive in the can. It became necessary, therefore, to add an accessory heating unit so that smoking could be carried out at higher temperatures. This was accomplished by installing inside of the recirculation pipe a series of electric heaters capable of raising the temperature in the smokehouse up to 140°F.

It was found that the best method for opening the oysters was to steam them in a retort for 30 minutes at 240°F. This treatment not only caused the oysters to open up but also dried them out to such a degree that the flesh could be removed easily and handled without causing it, particularly the mantle portion, to adhere to the shells. When they were allowed to remain longer in the retort during this preliminary treatment the mantle became dry and hard and actually adhered to the shells, resulting in some loss in weight as well as marring the appearance of the product.

After opening, the oysters were well rinsed in a 10° salinometer brine (2.5% salt by weight). This treatment was quite essential in removing all particles of sand and grit and at the same time lightly salted the product. All washing was completed within 5 minutes, after which the oysters were spread in a single layer on 1/2 inch mesh galvanized wire trays previously oiled with cooking oil to prevent them from adhering to the wire.

Avoid Contact With Air

It was found advisable at this state of the preparation to carry out the work as quickly as possible, so as not to allow the oysters to come in contact with air unnecessarily, as this will cause them to turn dark. Contact with air also toughens the oysters and gives them an unsightly appearance. For the same reason the smokehouse was always held in readiness as soon as the oysters had been placed on the trays; the electric heaters were turned on and the temperature of the smokehouse raised to 120°F. The smoke smudge was also started beforehand, so that the oysters could be subjected to the heat and smoke simultaneously. Under these conditions the oysters developed the desired light brown color very quickly without becoming tough and shrivelled. Four hours' smoking at 120°F. gave the most satisfactory product. A slightly darker product could be obtained by smoking the oysters for the same length of time at 130°F. Some tasters could actually distinguish between oysters smoked for 4 and 5 hours at either of these temperatures.

Two kinds of sawdust were used, birch and alder. The birch sawdust did not produce as dark a color as the alder, but imparted a decidedly sweeter flavor. Degree of smoked flavor and color is a matter of opinion. Most of those who tasted the samples favored the lighter color and milder smoke.

In these experiments 1/2 pound flat cans were used for packing the smoked product. After the cans were filled, from 1 to 1 1/2 fluid ounces of salad oil was added to each can, which was then exhausted for 15 minutes at 10 to 12 lb. pressure in the retort. After double-seaming the cans were then processed in the retort for 60 minutes at 240°F. They were cooled immediately after cooking and stored for later examination.

Samples prepared in this manner were submitted to the firm interested in the preparation of the product, and were found to be quite satisfactory.

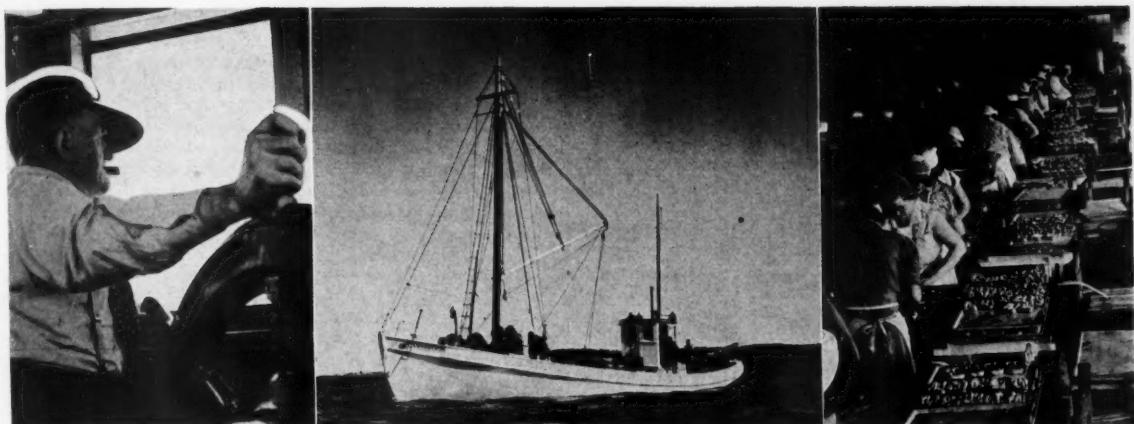
Because of the perishability of fresh oysters, it seems desirable to develop preserved products diversifying the business and providing additional outlets for the harvest.

Pink Discoloration of Oysters

WITH the co-operation of Maryland Senators, the Oyster Institute has secured the addition of \$10,000 to the appropriation of the Division of Fishery Industries, for oyster investigations, including causes of pink discoloration of oysters. Two additional technologists will be added to the Bureau's staff for carrying on this work.

It is suggested that when oyster packers find their oysters to be developing this discoloration, that they ship at least a quart of the affected oysters, well iced, by express to: J. M. Lemon, Bureau of Fisheries Technological Laboratory, University of Maryland, College Park, Maryland.

Information should be included regarding name of packer, date of shipment, date when discoloration was noted, size of shipment and the amount of stock in the shipment affected. Because of the seasonal nature of the trouble, the speed with which it sometimes disappears, prompt action is necessary if worthwhile results are attained, as announced by Dr. Lewis Radcliffe in an Institute bulletin.



Left: Capt. Frank Pendleton of the "Sylvania W. Beal", owned by the R. J. Peacock Canning Co., Portland, Me. Center: the "Conqueror", owned by the same Company, skippered by Capt. Harold Grew, and equipped with a 120 hp. Fairbanks-Morse engine, Hyde propeller, 2 Exide 17 plate batteries, R. J. Ederer & Co. seines, and radio telephone. Right: interior of Portland sardine plant of the R. J. Peacock Canning Co.—Photographs made by R. I. Nesmith and published through courtesy of Socony-Vacuum Oil Co., Inc.

Maine

Testing Removal of Starfish From Scallop Breeding Grounds

COMPLETION of experimental work in removing starfish from scallop breeding grounds to ascertain the possible results of continuing this activity on a large scale was announced by Sea and Shore Fisheries Commissioner Arthur R. Greenleaf recently. He said that several hundred bushels of the five fingered predators had been taken from a small area of the formerly productive Penobscot Bay beds and destroyed, and within a year the Department will be able to weigh the results of this harvest.

Fishermen and biologists have long contended that starfish is the worst enemy of the scallop and largely responsible for the rapid decline along the Maine coast. Whereas 15 years ago from 100 to 150 boats fished each Winter, last season there were less than a dozen.

Carl Reed, an expert and experienced Owls Head fisherman, was engaged for the work which was carried on under a plan set up by W. C. Harrington of the U. S. Bureau of Fisheries. A small bed that had until the entry of vast starfish hordes been an especially good breeding area was selected for the work. Next season tests will show whether or not the starfish have gone back to the beds or whether breeding has once more taken place.

Seining Operations Alarm Sardine Packers

A threat to Maine's sardine and other fisheries as the result of extensive herring seining operations in the Gulf of Maine by huge boats of foreign registry was disclosed recently. This activity, reputed to be backed by powerful fertilizer interests, if continued on a reported big scale, might soon seriously deplete the Maine coast herring supply. Not only would this affect the sardine industry but other types of fishing, as herring are an important source of feed for many commercial species.

Reports that five trawlers had been converted into seiners and would land their catches at sea on a large craft similar to those used on the Pacific coast as "floating factories." The fish would be converted into fertilizer aboard the factory ship and would be landed in American ports.

This type of operation has been carried on off the Pacific coast for many years and has depleted the herring supply to such an extent that legislative control has been necessary.

Investigation has revealed that the fleet would make its home port in Newfoundland or Canada. As the operations would take place outside the 12-mile limit, the problem is an international one and would have to be met as such if they do become serious.

Sardine packers and fish dealers are much disturbed at the reports. Depletion of the herring supply would have a very serious effect on the entire Maine fishing industry and extensive seining in the Gulf of Maine would be almost as harmful as seining along the coast.

Red Feed Disease

The advantages to be gained by the sardine industry in having complete knowledge of various phases of red feed disease in herring was stressed by Director W. H. Cole of the Mt. Desert Biological Laboratory in making a report of a State financed preliminary study to Governor Lewis O. Barrows. Examination during the Winter of over 200 microscopic preparations made the past few months should result in a number of important discoveries regarding the method of transmission of the disease, its course inside the fish and especially its cycle, Cole said.

Discovery of a cycle that could be predicted would be of the utmost value in that packers could prepare a sufficiently large pack of sardines to carry them over the year or years when the disease becomes severe, according to the report.

The disease which is described as a fungus parasite in the tissues and organs of the herring, especially the liver, kidney and spleen first caused serious loss to the sardine industry in 1930-31 and since that time sporadic outbreaks have closed the factories for varying lengths of times. As very little research had been done prior to the present study the industry has taken but few preventative measures.

The report said that due to the short time available for study this year only exploratory work was possible but that with a full season in which to work next year results should be highly satisfactory.

Feyler's Expands

Feyler's Inc., Rockland, Me., headed by Rodney E. Feyler, is carrying out a large expansion program calling for the moving of the Company's fish business to the former Donahue fish plant on Tillson Wharf. This plant, which has not been used for ten years, is 60 x 175, two stories high, with wharfage space on three sides. It will give Feyler's greatly increased facilities and permit the unloading of 5 trips of fish at one time. The plant will be equipped for the handling of round fish and scallops, as well as filleting and smoking. The Company's cold storage plant and freezer is located on property adjoining the new building. In addition to a fish business, Feyler plans to sell a complete line of fishing supplies, including engine fuel.

A privately operated restaurant will be located on one end of the wharf. A four stall garage will be built for Company cars and trucks. The plant will be ready for occupancy in the latter part of October.

Texas

University To Increase Freshness of Frozen Shrimp

UNIVERSITY of Texas frozen food engineers recently began quick-freeze experiments of shrimp to give them a right-out-of-the-net freshness. The experiments are expected to result in a slash of many hours from the net-to-rail or truck time and placing on the market shrimp in superior condition. The Gulf Coast fishermen's annual take of more than eleven million pounds accounts for 61 percent of Texas' marine industry, according to official statistics.

L. H. Bartlett, newly appointed assistant to the Bureau of Engineering Research, has started freezing shrimp by immersion in zero-degree brine. Freezing times to be tried will be from five minutes up to periods approaching the twelve-hour process.

This twelve-hour period causes some of the shrimp to decay, Bartlett explained. He pointed out that the weight of each take—about a ton—is enough to kill some of the shrimp. Then by the time it has been sorted and washed on the boat deck in the blazing sun of the Gulf a slight reddening of the feelers and legs has already begun. Furthermore, he said, more time is consumed in packing them down on the boat and freezing them in storage plants ashore.

Bartlett, who returned from Galveston after participating in a shrimp haul, said four Galveston fisheries had offered the University their fullest co-operation for the experiment, and expressed keen interest in its outcome.

It is Bartlett's contention that a small mother ship equipped with a quick-freeze unit can be designed for the shrimp fleets. Bartlett has already designed the machine. If he is successful then shrimp taken from the net will be frozen and on its way inland in a fraction of the time now required.

Shrimp Tagged in Louisiana

Two thousand tagged shrimp were released in the inland salt-water bays and lakes of Louisiana last month when the Gulf tagging program, begun last Winter, was resumed by C. Howard Baltzo. A thousand of the shrimp were released in Lake Pontchartrain, just off the New Orleans sea wall, and the remaining thousand in various parts of Barataria Bay in the coastal marshes of Louisiana.

Returns are already coming in from Barataria Bay, which supports an important Fall fishery. The ban on commercial fishing in Lake Pontchartrain will give shrimp tagged there a longer period of freedom from capture, as they will have to move out of the lake and into other areas before coming within the range of the commercial fishery.

Tagging of shrimp is being carried out by the Bureau of Fisheries in the Gulf of Mexico to provide information, similar to that already obtained for the South Atlantic coast, on the nature and extent of the seasonal migrations of shrimp and the intensity of the fishery. It is planned to extend the tagging experiments during the present season to include that part of the Gulf fishery lying between Mobile Bay, Alabama, and Trinity Shoals, off the western coast line of Louisiana. Tagging was begun in the Mobile Bay section late in September. The tagging is being done from the Bureau's 43-foot trawler *Launch 58*, under the direction of Mr. Baltzo.

Another Louisiana Trawler

E. Klonaris Shipyard is working on another trawler which will be added to the boats operating out of Morgan City. The trawler is being built for Capt. B. John, who has been skipper of the *Benito Mussolini*, owned by Felice Golino, Patterson, La. The new trawler will be 51 x 16 ft. and, it is said, will be powered with a 100 hp. Caterpillar Diesel engine.

Three Superior Installations

Capt. Guido Zecchine has installed a new 100 hp. Superior Diesel engine in his *Providence II*. The *Providence II*, which has a carrying capacity of around 25,000 lbs. of red snapper, is said to be the largest boat out of Morgan City engaged in this fishing.

Another Morgan City boat has installed a 100 hp. Superior Diesel engine, the trawler *Lion*, skippered by Capt. M. Vidos, Jr., and owned by Mrs. M. Vidos.

Capt. Hans Petersen has fallen in with the trend toward increased power for trawlers, and has just installed a new 100 hp. Superior Diesel engine in his boat, the *Gem*. Capt. Petersen is also adding a new Hathaway hoister and steel cables to his equipment, these being made necessary by the power increase. The *Gem*, a 38-footer, is skippered by Capt. Petersen, and is one of the outstanding boats of the Morgan City fleet.

Red Snapper and Shrimp in Same Net

It's unusual when a trawler pulls up a red snapper in a drag for shrimp, but it's still more so when red snapper and shrimp come up together in the same net. This was reported by Capt. Andrew Hedlund of the boat *Masen*. On the "edge" of the shrimp grounds the net came over with a big red snapper among the haul of shrimp.

Mississippi Workers to Receive Help

The Mississippi Unemployment Compensation Commission held a hearing in Pass Christian September 25 to determine the eligibility of some 350 members of the Pass Christian Sea Food Workers' Association to draw unemployment compensation while the Dunbar-Dukate cannery factory is not operating.

Some question has arisen whether the members of the Sea Food Workers' Association, composed chiefly of women who engage in picking shrimp, were entitled to draw unemployment compensation because of the labor dispute existing between the fishermen and the management of the plant.

After the hearing the Commission went into executive session and later rendered its decision adjudging that the members of the Sea Food Workers' Association were eligible to draw unemployment compensation and a judgment was entered accordingly.

Biloxi Agreement Reached

Announcement was made September 23 by union officials including Acting President P. A. Songe, Secretary Oswald Chatam, and Treasurer Charles Allen, that fishermen and packers had reached an agreement over the price of shrimp, and the majority of Biloxi, Miss., packers were expected to resume operation, September 25. Factories signing with union for the \$1 barrel increase in shrimp were reported to be the Anticich Co., Southern Shell Fish Co., C. C. Company, John Berneski, Roy Rosalis, Dorgan-McPhilips Packing Co., and Southern Fisheries, all of Biloxi; Marine Food Products, Bay St. Louis; Kierney, Slidell. The agreement was reached after a tie-up of several days following an increase in price asked by fishermen.

Oyster Dredging Banned on Alabama Coast

Dr. Walter B. Jones, Alabama Conservation Director, announced September 27 that oyster dredging will be prohibited along Alabama's Gulf coast this season in a move intended to conserve salt water resources. Only tongs may be used in taking oysters from public reefs or bottoms.

Saunders' Florida Fleet

To reach some of the more important snapper banks, the fishing smacks of E. E. Saunders & Co. cover an area of several hundred miles from Pensacola, Florida, to the Mexican coast. Their catches of red snappers, grouper and pompano are shipped to every part of the United States.

In former times the only ice available was shipped in by schooner from New England, and was too expensive to use on fishing boats. Fish were kept alive on the smacks in wells amidships.

E. E. Saunders & Co. operate some thirty boats of the Gloucester schooner type, from 75 ft. to 100 ft. in length, rigged with Columbian rope. All are equipped with auxiliary engines, radio and modern refrigeration. The company building has modern freezing rooms, an ice plant, sail loft and engine repair department. They have their own supply department, and vessels get their groceries right from the company. Frank E. Welles is Manager.

"Katie D" and "Pelican" Launched

THE *Katie D.* was launched at Thomaston, Maine, by Morse Boatbuilding Corp., September 14, for Dallet & Son, New York City. She is 95 x 19 x 9, and will be commanded by Capt. Valentine Meade.

She will be powered with a 240 hp. Deutz Diesel engine, and will have a speed of 10½ knots per hour. Other equipment includes a 32 volt Exide Ironclad battery, same as in Dallet's *Mary Anne*; Columbian propeller, Shipmate range, New England clutch and winch, Plymouth cordage, Fathometer, and Lux fire extinguisher.

This beam trawler will carry a crew of 10, and will have a capacity for 125,000 pounds of fish.

"Pelican"

The dragger *Pelican* was launched September 16 from the Snow Shipyard, Rockland, Maine. Mrs. Helen Robertson, daughter of Phillip Smith, President of Snow Shipyard, Inc., was the sponsor.

The *Pelican* is 76 x 18 x 9, and will be powered with a 160 hp. 4 cylinder, 10½ x 13, Atlas Imperial Diesel engine. Other equipment includes Hyde propeller, Hathaway fishing gear and stern bearing, Shipmate range, and Fathometer. She will have cement floors in hold.

In appearance, the *Pelican* is somewhat different from previous draggers in that her flare is carried right through the bulwarks, giving her a wide appearance.

She will carry a crew of 10 men, and will have a capacity for 60,000 to 70,000 pounds of fish.

The *Pelican* will be skippered by Capt. Arne Pederson, who is part owner with Carl Beckman, of C. E. Beckman Co., New Bedford.

Coffin Trawler

The trawler under construction at the Snow Shipyard, Rockland, Maine, for Capt. Clyson Coffin, of Port Clyde, Maine, formerly skipper of the Boston trawler *Maine*, will be launched soon after the first of the year.

This trawler will have a 500 hp. Fairbanks-Morse propulsion engine, and a 7½ hp. Lister auxiliary engine. She will be equipped with a 110 volt Exide battery, New England Trawler Equipment Co. winch and trawling gear, and will have an 8,000 gallon capacity fuel tank.

The planking keel, foundation and stern post will be of Virginia white oak, and the planking will be of 3 inch material. She will be tree nail fastened, and will have a steel pilot house and steel deck beams, which will eliminate pulling due to engine heat.

The trawler is being built with Government aid, which guarantees the bank 75%, while the owner pays 25%. This is the first fishing boat to be built through the Maritime Commission under title 11. In order to secure this loan, the boat must have a reputable architect, and must be built under American Bureau of Shipping specifications, class E-A-I, which is the same classi-



The "Katie D.", launched September 14 by Morse at Thomaston, Maine, for Dallet & Son, New York.



Mrs. John Dallet, sponsor for the "Katie D."



The "Pelican" ready for launching.



The "Pelican" hitting the water.

fication as used in trawler construction. William Renz, of Boston, is the Supervisor. Albert Condon, of the Snow Shipyard, drew the plans.

Scallop Dragger

A new scallop dragger for Mrs. Winifred Martin, of New Bedford, is scheduled for launching some time this month at the yard of B. F. Warner, Kennebunkport, Maine. Her dimensions are 78 x 18.

The main engine is a 4 cylinder, 135 hp. at 325 rpm. Atlas Diesel engine. Mrs. Martin's other vessel, the *Winifred Martin*, is powered by a 4 cylinder, 110 hp. Atlas.

Other equipment includes a Hyde propeller, Hathaway stern bearing, winch, fish hoists, etc., Kinney clutch, Plymouth cordage, Marine Household range, and hardware from E. J. Willis Co., New York City.

Ultraviolet Irradiation of Haddock Fillets

Effects as Reported by Messrs. Puncochar,
Lanham and Nilson, of Bureau of Fisheries

SINCE fish is a highly perishable food, and the problem of preventing bacterial composition is ever present, any means which can profitably be used to retard bacterial growth is of great importance in the handling of fishery products.

Numerous reports have recently been published indicating that irradiation by ultraviolet light has been beneficial in reducing the bacterial infection in milk, bread, and meats, thus improving the keeping qualities of these foods.

Effect of Irradiation of Long Duration on Fillets

Two commercial applications of irradiation by ultraviolet light are possible. First, it may be used for the irradiation of fillets immediately after production in order to reduce the incidental contamination by bacteria. In this instance the irradiation by ultraviolet light should substitute for, or supplement, the washing of fillets in sterile water or germicidal solutions. Secondly, the fillets may be irradiated after arrival at the retail stores. In this case the irradiation by ultraviolet light would be expected to decrease the contamination acquired during storage, shipping, and possibly during display on retail counters. In either instance, the value of this treatment would depend on the increased time interval during which the fillets retain a desired state of freshness and superior quality.

The first problem to be considered in the preliminary work was to determine (1) if an extended period of irradiation would effect an appreciable decrease in bacterial numbers, which, in turn, should permit longer storage, and (2) whether this had any adverse effect on the nutritive value of the fillets. A significant decrease in bacterial numbers would indicate the need for determining the practical minimum period to obtain similar results.

Secondly, no adverse effects on the nutritive value would suggest that none need be expected by periods of irradiation for shorter intervals.

Bacterial Studies

In this experimental series market fillets were used, since the preliminary work could just as well involve bacterial counts and nutritive studies with fillets available at the retail market as could similar studies with fillets prepared from newly caught fish. Twelve unfrozen skinned haddock fillets were obtained from the wholesale market in Washington, all being from the same lot and approximately the same size. Six of the fillets were irradiated for 1 hour on each side. The remaining fillets, to be used as controls, were exposed for a similar period out of range of the lamp. Two of the irradiated fillets and two controls were ground separately through a sterile meat chopper. The ground samples were mixed thoroughly under aseptic conditions and samples were taken for bacterial count, ammonia, and moisture content. Fillets to be held in storage were wrapped in cellophane and kept in a refrigerator at 10°C. (48°F.).

The data show that prolonged irradiation by ultraviolet light did not affect the dry-matter content. The bacterial count was reduced by as much as 75 percent and the ammonia content was decreased by about 20 percent. Prolonged irradiation did not effect any change in the appearance of the fillet, but it did slightly soften the texture of the tissue.

On the basis of odor and appearance, six observers found duplicate irradiated fillets in every case superior to their controls after 2 days of storage; four observers unanimously chose the irradiated fillet in preference to the controls after 3 days of storage, and two observers preferred the irradiated fillets after 7 days of storage. In no instance was a non-irradiated fillet found more desirable. Flavor tests were not conducted, since they did not seem to be necessary to distinguish preference.

The decrease in bacterial count was probably due to a destruction of surface infection, without affecting the bacteria

which were deeply seated in the muscle fibers. Since the surface contamination is the most important factor affecting keeping quality, these data indicate that the beneficial results of ultraviolet irradiation could be obtained in a much shorter period of time.

Nutritive Value

Some concern was felt as to the possibility of an adverse effect of irradiation on the nutritive value of the protein, so feeding tests were conducted to determine the growth-promoting value of irradiated and control samples. Fresh samples of fillets, which had been irradiated for 1 hour on each side, and controls were prepared every 5 days. The samples were finely ground and stored in screw-cap glass jars in the refrigerator.

The data show that even this excessive period of irradiation had no adverse effect on the nutritive value of the haddock protein. Gains in weight and the food intake were very similar. If this prolonged period of irradiation does not adversely affect the nutritive value of the protein, a much shorter period should be negative. However, a preliminary assay shows that the prolonged irradiation more than doubled the vitamin D potency over the control. More complete assays to determine quantitative differences are now in progress.

In general, the data from the preliminary experiments show that the prolonged period of irradiation did significantly reduce bacterial infection and increase the keeping quality of the haddock fillets. Secondly, it had no adverse effect on the nutritive value of the protein and appeared to increase the vitamin D potency. These results indicated that the study should be continued and that a determination of the lethal effect of a minimum period of irradiation on strains of bacteria isolated from the haddock fillets should be made.

Discussion

The data from these preliminary experiments indicate that the irradiation of market fillets by ultraviolet light for the excessive period of 1 hour on each side significantly reduced the bacterial contamination without adversely affecting the nutritive value of the protein or the color or texture of the fillets. The data also show that four out of five cultures of bacteria isolated from market fillets were destroyed by only a 2-minute exposure. This indicates the probability that some similar period may be all that is necessary to reduce surface contamination of fillets to the extent that the keeping quality is enhanced.

From the mechanical standpoint the device can be incorporated into the unit operation of fish filleting by being fixed over and under conveyors. It may also have value in sterilizing equipment such as table tops, knives, etc. In retail stores the ultraviolet lamps may be fixed in display cases and in coolers. The initial data, although not conclusive, are sufficiently impressive so that further study is now in progress to determine more exactly the application of this device to the practical needs of the fishery industry.

Summary and Conclusions

1. Preliminary tests show that an irradiation of one hour on each side markedly reduces the bacterial count of haddock fillets without significantly affecting the appearance, texture or dry matter content.

2. This comparatively long period of irradiation had no adverse effect on the nutritive value of the protein and increased the vitamin D content.

3. These tests also show that four out of five cultures of bacteria isolated from market fillets were destroyed by only a 2-minute exposure.

New Jersey Oyster Business To Have Good Year

NEW JERSEY'S \$20,000,000 oyster business will have a good year, according to Joseph N. Fowler, Director of the State Board of Shell Fisheries. The State does a bivalve business of from \$4,000,000 to \$6,000,000.

Investigations conducted by Prof. Thurlow Nelson disclose conditions in the oyster-producing waters of New Jersey are more normal than in several years. The situation has been greatly aided by the conservation policy sponsored by the Board. For the past two years seed oysters have been planted in quantity by private interests on natural beds leased from the State for the purpose of cultivation and during the season just begun as well as the 1940-41 year New Jersey should have a good supply of marketable oysters of fine quality.

Shad Fishermen Protest Proposed Regulation

Lower Hudson River shad fishermen protested to the Navy Department in Washington early in October against a proposed regulation to prohibit the setting of stake nets in a section of the river between New York's 60th and 140th streets.

Presented to the Navy Department by U. S. Senator W. Warren Barbour of New Jersey, the fishermen's protest contended that shad fishing would be adversely affected to a serious extent, and stated that the fishermen give employment to many persons during the short season.

Expressing doubt that their nets would affect river traffic seriously, the fishermen offered to co-operate with the Department should occasion arise that required the space. They pointed out that their poles could be removed in 24 hours.

Menhaden Legislation

Recently enacted New Jersey legislation limiting the size of vessels that may be used for menhaden fishing in the State's coastal waters has been amended to eliminate a provision that the fish taken must be processed in New Jersey. The amendment striking out that provision was passed recently by the New Jersey Legislature at Trenton, and was signed Oct. 3 by Governor Harry Moore. The amendment was sponsored by Assemblyman I. Grant Scott of Cape May County, who earlier in the year had sponsored the original measure.

Oyster Barrel Labeling Requirements

SHIPPERS of oyster shellstock in barrels will be interested in the following information from W. G. Campbell, Chief, Food and Drug Administration, Washington, D. C.

"There is no requirement, so far as the Food, Drug, and Cosmetic Act is concerned, limiting oyster barrels to any particular dimensions. The law does, however, require all food in package form to bear a prominent statement of the quantity of contents just as did the old Food and Drug Act. If, therefore, these barrels of oysters constitute food in package form, the barrels must continue to bear a prominent statement of the quantity of the contents and in addition, under the new provisions of the law, the name and place of business of the packer or distributor."

The "Delaware", owned by Booth Fisheries Corp. of Boston and the first U. S. trawler built with Maierform hull. She is 146 x 25 x 14 ft. 9 in. and is powered with a 735 hp. Model 37, Fairbanks-Morse Diesel engine, and equipped with Kingsbury thrust bearing and shaft. Other equipment includes Hyde propeller, Exide batteries, Edson steerer, Columbian cordage, Kelvin-White compass, RCA radio-telegraph, Shipmate range, and General Electric switchboard and winch motor.



Wm. M. McClain, Philadelphia shellfish dealer, with Capt. Lucius Peters, on the "Josephine M.", inspecting a load of oysters taken from one of the McClain oyster beds.

News of New Bedford

By M. E. Harney

THE Beatrice S., skippered by Sam Jackson, was towed by the cutter *Thetis* into port on the 29th. The rudder and post were carried away when the vessel, three days out, had 400 gallons of scallops aboard. The *Beatrice S.* drifted for twelve hours before the trawler *Notre Dame* telephoned for help. The cutter had difficulty in towing the craft in. The *Virginia and Joan* of Gloucester was also towed in here. She was rendered helpless on the Northeast tip of Georges Bank.

"Isabel Q." Being Repaired

D. F. Mullins is doing extensive repairing on the *Isabel Q.*, and she should be in excellent condition when she is ready. As yet no skipper has been assigned to her, and Capt. Dan has not said what kind of fishing she will do.

Cod and Haddock Prices Good

The price of cod and haddock has been very good here lately and several of the New York fleet have joined the local boats. They are the *Dagny*, *Gloria F.*, and *Gyda Else*.

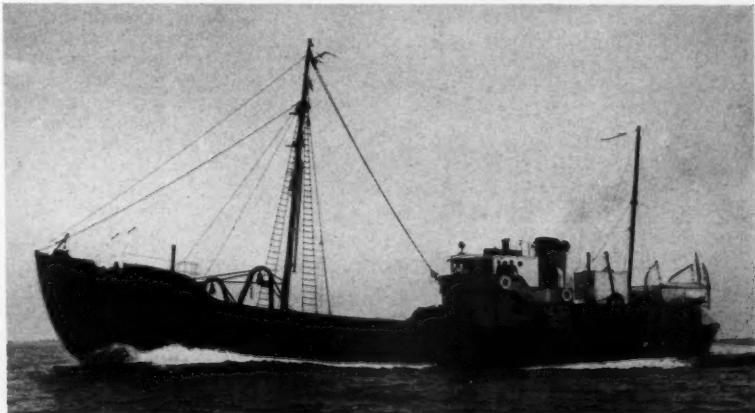
At Hathaway's

The *Uncle Guy* has been at Hathaway's to have a winch installed. The *Rainbow* has been refurnished from stem to stern, and has sailed for the grounds.

Jim Foley's *Alice and Mildred* and John Foley's *Palastine* have also been at Hathaway's. The *Palastine*, the one time palatial yacht of Andrew Peirce, has made three trips and very successful ones. She is owned by Sanchez of Newport, R. I.

Scallops Bring Good Prices

The scallop fleet, although getting some tough weather lately, are reaping fine prices, and the crews are sharing well.



Gloucester

Schooner Being Built for Capt. Benham

WORK on laying the keel for an 85 ft. auxiliary schooner at the John F. James & Son shipyard, Essex, started Oct. 10, to be ready for launching the first of next year. The craft is being built for Capt. Thomas Benham of Gloucester, and will be commanded by his son, Capt. Gerald Benham. Lyman James has charge of the construction.

Continental Applies for Pier Store

Formal application of the Continental Seafood Products, Inc., for lease of No. 8 store in the Stores building on the new State Fish Pier has been made to the Pier Association.

Flags to Be Painted on Fishing Vessels

Owners of beam trawlers and draggers over 100 ft. are painting flags on their boats, for their own protection, after hearing reports of a Nazi plane and submarine on Georges.

Mackerel From Block Island

The Block Island neighborhood is still contributing large mackerel to local seiners, seven of which were at New Bedford recently with 123,000 lbs., and all sold at four cents a pound.

Good Mackerel Trip

One of the finest trips of fresh mackerel landed this year was that of the local seiner *Eleanor*, Capt. Frank Foote, who was at New Bedford Sept. 21 with 55,000 lbs. of large mackerel. The stock was estimated in the vicinity of \$3,800, and the share, \$140.

"Phyllis A" on the Ways

The 65 ft. auxiliary dragger *Phyllis A.*, Capt. Albert Arnold, is on Burnham's railways being repaired as the result of her running onto Shag rock on the Westerly side of Ten Pound Island.

Changing to Dragging

Parkhurst railways has the swordfisherman *Mary M.*, Capt. Thomas Meagher, on the ways changing over to dragging.

Jacob Story

Jacob Story, seventh generation of the oldest shipbuilding artisans in Essex, passed away September 30 at the age of 45. He had operated the Arthur Dana Story shipyards since 1934, and had constructed several fine fishing craft, commercial boats and yachts. Plans for expansion of the business were sharply terminated by his illness. Among some of the fishing vessels built by Mr. Story were: *Shirley M. Clattenburg*, Capt. Harry Clattenburg; *Mary M.*, Capt. Tom Meagher; *Marie and Katherine*, Parisi brothers of East Gloucester; *Joan and Ursula*, Capt. Ike Norton; *Noreen*, owned by Capt. Mike Smith, of New Bedford, and Flag Fish Co., of New York; *J. B., Jr., II*, John Bruno; and *Skilgolee*, Quincy Adams Shaw.



"Aerolite", 56 ft. lobster smack owned by Capt. L. H. Simons of Beals, Maine. The boat has a new D13000 Caterpillar Diesel engine sold by Eastern Tractor & Equipment Co., South Portland; and a Columbian propeller.

Vineyard

Fishing Affected By Early Fall Temperatures

By J. C. Allen

THE first touch of autumn hits these bearings with all the abruptness and shock of a bucketful off the top of a green sea spilling down the back of a man's neck. The temperature hit the forty mark, after a drop of some thirty degrees within the space of a couple of watches. It was chilly, but it didn't mean a thing to the sea-skimmers. Late August and early September brought wind and plenty of swell together with a more or less unsettled condition of the ocean.

It affected all the fisheries in shoal and near-shoal soundings and the probabilities are that few of 'em will recover from the effects this Fall. Trap-fishing practically stopped short in early September. The swordfishing let go with a bang that sent more than one deep-legged craft into port with her ice gone and her hold as empty as a bass drum. The hand-liners quit, not entirely because the whole cussed ocean stood on end, but because the water was so devilish thick that a scup couldn't see the bait with a telescope.

Hand-Lining

When things smoothed out a bit, the hand-lining picked up again, and the latter run of luck consisted of a better size of sea bass, larger scup, and a pretty good cut of tautog, which is the hand-liner's Fall bank account, inasmuch as they mostly car these critters and hold on to 'em until early Winter.

Dragging Not Affected by Weather

The dragging delegation seemed not to be affected. Some of 'em had to change their cruising ground by a few miles, but they found the fish and it was a singular fact that some of these lads made a better week's trip than they had seen during the entire season, and this during the observance of the Jewish holidays, which was about as rare an occurrence as the sight of a Chinaman with a full beard.

Haddock Makes Early Appearance

Another feature of the Fall program was an early appearance of the haddock, which fact brought as much joy to the hearts of our sea-skimmers as a close-range sight of Santa Claus in person.

Striped Bass Still Plentiful

Striped bass have continued to run chin-deep to a dinosaur all around our neck of the ocean. A skillful lad with a heaving-line could make as much in a couple of hours as he could on a ten-day bank trip, at times, just catching these fish. But it is not all velvet at that, because they are a temperamental sort of critter and there are days when the devil himself couldn't get 'em to bite, so the commercial fishermen only tackle them by spells.

Sea Scallops

Our sea-scallop fleet has also continued to land on fish, and although the weather conditions have caused several broken trips during the past month, the average run of luck has not been bad at all because the trend of the market has been upward and aloft all the time. While no one has made any fortunes at the game, and probably won't, there is very little kicking, which is an unnatural condition among fishermen anywhere.

Speaking of scallops, the longshore contingent expects a good set of bivalves this Autumn and the season's opening has already been set in at least one town. Oak Bluffs, which leads the county in shellfish propagation, will open the first of the beds on November first, and the gang that goes down to the sea in sharpies must use dip-nets only. The reason for this is the shoal water, which is not over a foot deep in many places with a mud bottom which is easily stirred and has smothered quantities of seed. Old-timers in this section used to employ dip-nets only, and for the same reason, and a return to the practice is expected to result in an increase in the catch.

Maryland

Oysters Being Harvested in Somerset County

By Edward Bowdoin

DAWN of September 15 found the watermen of Somerset County waiting with their boats ready for the starting signal of the oyster tonging season. All prepared and waiting, with boats freshly painted and repaired and needed equipment overhauled or replaced, scores of tongers sat waiting for the dawn to begin the season which doubtlessly will mean much to them from a financial standpoint.

The tongers have not been alone in making preparations for the season. Crisfield packers and shippers, too, have been busy getting their places of business in shape in order to more efficiently operate and more speedily take care of the demand once the season gets well underway.

From all indications this will be a profitable season to both the tongers and the shippers. The oysters are reported to be in excellent condition.

First Oysters

The first oysters of the season were landed in Crisfield September 8 by Capt. Lloyd Parks, and came from the Patuxent River on the Western Shore. They were of fine quality, and were put out at the oyster packing establishments of W. P. Hickman & Company and Sterling & Son.

The shipping of oysters from the waters of Sinepuxent and Chincoteague Bays has begun. Approximately fifty packers will average thirty-five barrels per day.

C. C. Watson, Girdletree, Md., packer, estimates that this year's crop, while good, will not total the output of last season. However, Ocean City, Md., packers estimate their oyster supply will surpass any in previous years. Two hundred additional acres of oyster bottom have been planted to date.

Ask to Have Oyster Branding Restrictions Removed

A meeting was held in Washington, September 26, for the purpose of clearing up a situation that threatens to adversely affect Maryland's oyster industry. It was attended by Mr. A. Earl Dize, representing Crisfield and Eastern Shore packers, and Mr. H. G. Wells, head of the Chesapeake Can Co.

The meeting was called at the instance of U. S. Senator George L. Radcliffe, to whom the packers had turned for assistance to straighten out the proposition, which is that government authorities had declared Maryland packers cannot brand their shucked oysters as "salt water oysters."

In order to determine just what the packers wished for, however, a committee composed of V. L. Hodges of Ballard Bros., H. T. Darling of Darling & Co., Virginia; George Harrison of the Tilghman Packing Co., Tilghman Island; Carl Veach of G. M. Clayton & Co., Cambridge; W. L. Adams of Baltimore; and A. Earl Dize of Crisfield was appointed to meet within a short time and develop a program to be presented to the Government for its O. K.

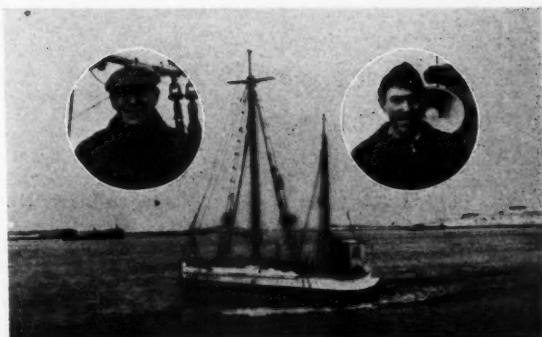
Sanitary Code for Oyster Industry

A voluntary sanitary code for the oyster industry of Maryland and Virginia was drawn up in the office of Senator George Radcliffe, in Washington, D. C. Representative Bland of Virginia was also present.

The committee selected was headed by A. Earl Dize of Crisfield, Carl Veach of Cambridge, Md., V. L. Hodges of the Ballard Fish & Oyster Co., of Norfolk, Va., and L. R. Darling of Hampton, Va.

Federal officials included Dr. W. D. Campbell, chief of the Food and Drug Division of the Agricultural Department; Dr. R. H. Riley and A. C. Sullivan of the Maryland Health Department, also Dr. R. H. Fielder of the Bureau of Fisheries.

The code is similar to the voluntary agreement already in operation, which brings uniformity in the industry and serves the public notice that the two States have complied with the rules and regulations of the Federal and State governments.



The "Etelvina V", a 42 ft. flounder dragger owned by Capt. Manuel Viegas and son, Orleans, Mass. The boat is equipped with a 100 hp. at 1600 rpm. Superior Diesel engine, 6 cylinder, 4 1/2 x 5 3/4, with 2-1 reduction gear, sold by Walter H. Moreton Corp., Boston. She has a 30-22 Columbian wheel.

Local Product Met with Instant Favor

That Crisfield seafood packers are alert to the advantages of putting up their product in new forms that will appeal to the housewife is demonstrated by the attention drawn to canned herring in an article by Clementine Paddleford on the food page of the "New York Herald Tribune" of August 18th. The herring, packed in new tins and with an attractive label on the can, are the product of the packing house of Ralph Riggan & Brother, Crisfield.

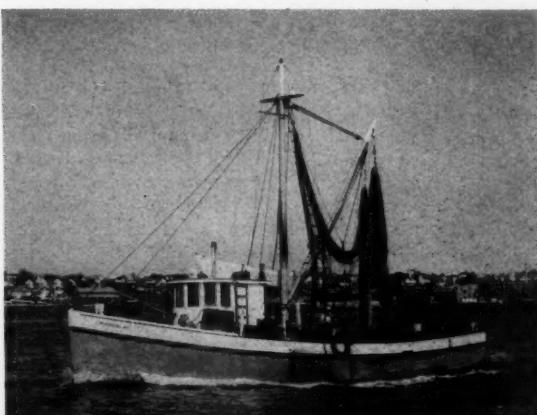
Superior Diesel for "Mollie V. Leonard"

Nat Gates, Jr., & Son of Crisfield have just completed the installation of a large four-cylinder Superior Diesel Marine Motor in the *Mollie V. Leonard* of Cambridge, Md. The *Leonard* is a fine converted schooner of 120 gross tons, registered, and is used in the freighting of oysters and oyster shells to and from Cambridge.

Seafood Firm in Business Fifty Years

The seafood packing firm of George A. Christy & Son of Crisfield rounded out its fiftieth year of business in September. In 1889, George A. Christy, Sr., founded the firm. Clarence A. Christy, a son, is now manager of the firm, with Richard W. Christy, a grandson, as assistant. George A. Christy, Sr., died in 1932.

The firm is one of the leading seafood packing houses in the State of Maryland. Just recently the firm installed a Flakice machine and will manufacture ice, not only for their own use, but also for sale to other packers.



The 60 ft. dragger "Mandalay", owned by Capt. Jas. H. Lawrence of New London, Conn., powered with a 100 hp., 8 1/2 x 12 1/2, 4 cylinder, 4 cycle Wolverine Diesel engine. She has a speed of 9.66 knots.

Virginia

Oyster Season Opens on Potomac

THE Autumn oyster season opened September 15 on the Potomac River with Virginia and Maryland oystermen out in force and patrol boats from both States enforcing the cull law.

This law, passed in 1930, provides that oysters taken from the Potomac must be culled on the rocks, beds and shoals when they are taken and those measuring less than three inches in length must be replaced in the waters. It is unlawful to have in possession more than 5% of undersize oysters and shells, and severe penalties are provided for violations.

Three benefits are derived from this law, according to the Virginia Commission of Fisheries. Small oysters are saved, and a future supply is insured, a better grade of shellfish is marketed, and better prices are obtained by the oystermen.

State Seafood Exhibit

A comprehensive display of the marine life and the seafood industry of Virginia was staged by the Commission of Fisheries at the Virginia State Fair in Richmond on September 25 to 30 with Inspector J. T. Meyer of the Commission staff in charge. Raw oysters were served at the booth, and copies of the popular booklet of "101 Approved Recipes for Delicious Virginia Seafoods" were distributed to housewives. Marine oddities loaned by the Commission inspectors and others were included in the exhibit.

Bushel Tax on Oysters Reduced $\frac{1}{4}$ Cent

Commissioner of Fisheries G. Walter Mapp has announced that the "bushel tax" on oysters taken from Virginia waters has been reduced from $1\frac{1}{2}$ cents to $1\frac{1}{4}$ cents for the forthcoming oyster season.

The reduction was possible because the tax last year yielded more than the \$25,000 revenue expected from it. Eighty percent of the revenue from the tax is used in repletion and conservation of oysters and clams, and the remainder goes to the Commission's general fund to defray the cost of collecting the tax. The levy is collected principally from shucking houses and "buy boat" captains by the Commission's oyster inspectors.

Lower Rappahannock Opened to Patent Tongers

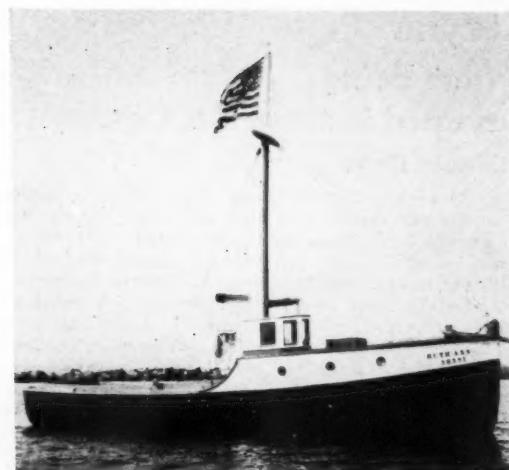
The Commission of Fisheries held a special meeting October 6 in Newport News to hear a petition from oystermen seeking to have the lower end of the Rappahannock opened to patent tonging. The petition, signed by 275 persons and supported by a strong delegation of oyster people, was considered at the September meeting of the Commission, but decision was withheld pending a public hearing.

The lower part of the Rappahannock River, below an imaginary line from Towles' Point to Burhan's Wharf, was opened to patent oyster tongers by the Commission of Fisheries following the special hearing.

The approval, long sought by watermen in the Rappahannock area, is effective October 19 and will give Rappahannock oystering a big boost this season in both yield and profits, watermen predict. The Commission has set a limit of 35 bushels a day for each patent tonger, the oysters to be culled on the spot.

The hearing was held, with Commissioner of Fisheries G. Walter Mapp presiding, and was attended by scores of oystermen and their representatives. State Senator R. O. Norris and former Delegate R. Hill Fleet both spoke in behalf of the patent tongers, while C. M. Louis represented a group opposed to them.

The patent tongers presented evidence designed to show that patent tongs do not disturb oyster bottoms any more than hand tongs. Opening of the deep-water rocks to patent tongers will



The party fishing boat "Ruth Ann", owned by Capt. Norman Dodge of Block Island. She is $32\frac{1}{2}$ x 10 x $3\frac{1}{2}$ and is powered with a 30 hp. medium duty Palmer gasoline engine.

permit a wider distribution of oystermen in the river, they argued, and will enable each to make more money.

Postpone Meeting of Three Commissions

Commissioner of Fisheries G. Walter Mapp announced this week that the proposed meeting of the Maryland Conservation Commission and the North Carolina Fisheries Commission with the Virginia Commission has been postponed and will be held later this Fall in Hampton Roads.

The invitation to the Maryland body reciprocates a similar invitation made by Chairman Edwin Warfield to the Virginia Commission several months ago to attend a joint meeting which was held aboard the Maryland patrol boat *DuPont* at Colonial Beach.

Oystermen Enthusiastic Over Early-Season Outlook

The State-wide oyster season which opened October 1 is bringing big catches, fat oysters, and encouraging outlook in the Hampton Roads area. Prospects are bright for a good season.

One major Hampton packer said the quality and size of the catch was the best he had seen in years, bearing out the eloquent testimony of Captain Gabriel Archer, who wrote in 1607 that Virginia oysters were "very large and delicate in taste."

Large Proportion of "Tagged" Shad Caught

Fifty-one percent of the shad tagged by U. S. Bureau of Fisheries experts in Chesapeake Bay last Spring have been caught and the tags returned, according to the latest report of Robert A. Nesbit, in charge of the Bureau's Middle Atlantic Fishery Investigation.

"There are good reasons to believe that more than 51 percent were actually caught," Nesbit believes, "for a number of fishermen informed us later that they had caught tagged shad but had thrown the tags away, not knowing that a reward of \$1 was offered."

Primary purpose in tagging the fish was to compare the percentage caught by fishermen in Chesapeake Bay with the percentage caught in the Hudson River, where conservation measures to protect spawning shad are now in force. Only 40 percent of the tagged Hudson River shad have thus far been reported caught, indicating that the protective measures are helping insure life and reproduction of shad in the Hudson.

The shad-tagging experiment will be repeated next Spring in an effort to learn whether Chesapeake Bay shad always return to the Bay. "Of course we will not have information from last year's experiment until next Spring," Nesbit declares. The tagging will be preceded by an announcement to all licensed fishermen in the Bay to be on the lookout for the tagged fish.

Wisconsin Reaffirms Old Chub Net Mesh Ruling

FISHERMEN on Lake Michigan—Wisconsin side—are taking sides regarding a new order recently issued by the State Conservation Commission, or rather a reaffirmation of an order issued in 1937, covering the minimum flexible rule measurements of chub net mesh, which, two years ago, was increased from $2\frac{3}{8}$ to $2\frac{1}{2}$ inches. Two years' time was allowed so that nets in use when the order was originally issued would not have to be replaced. Some commercial fishermen claim that the larger mesh results in a decrease as high as 40 percent in the catch. In discussing the regulation, a fisherman of many years on the Great Lakes, Everett La Fond, who is secretary of the Wisconsin Commercial Fishermen's Association, had this to say—

"The regulation will ruin us. Just to see how many fish could be caught with the new nets, I set out a box of them. When the nets were lifted, the entire box brought in only eight chubs. With the nets we are using now I would have had 60 to 75 chubs."

"Fishermen won't buy the new sized nets, for they know they can't fish with them, and chub fishing is the backbone of the industry."

Frank Le Clair and Arthur Luebke, of Two Rivers, are strongly opposed to the order.

The order about to be put into effect has other provisions that won't be liked by fishermen. Chub and trout nets must not be more than 20 meshes deep (the present nets are 60 meshes deep). For baby trout the legal size is now $18\frac{1}{2}$ inches as against 16 inches under the former rulings, and perch must be 8 instead of 7 inches.

On the other hand, one of the most active commercial fishermen on Lake Michigan, Oliver Smith, of the firm of Smith Brothers, who is also secretary of the Conservative Commercial Fishermen's Association, said that its eighteen members were in favor of the $2\frac{1}{2}$ inch chub nets. In explaining his stand on the question, Smith stated that Lake Michigan had practically been fished out of chubs, due to the intensive workings of this industry for many years. Making the mesh larger in the nets, he said, will give the chubs an opportunity to grow to regulation size before being hauled in. Give them five years, he declared, and the chubs would be of good size in large numbers, and commercial fishermen can then command better prices for their catches.

Airplane Delivery

Commercial fishermen in the Sturgeon Bay territory have found a new outlet for their catches, especially lake trout from Lake Michigan. In August of this year, William J. Hadden, a local pilot, made trial flights with an airplane from Sturgeon Bay to the St. Louis territory, carrying about 500 pounds of fish on each flight; from the Wisconsin city to food markets, said to be national chains, in Illinois towns just across the Mississippi River from St. Louis—Belleville, Collinsville and East St. Louis. The principal appeal, besides the good quality of the trout, is the saving in time in transit, the distance being about 550 miles as the crow flies.

The capacity of the new air route, with one plane, is about 5,000 pounds of fish a week, with five flights per week, to the St. Louis territory, with a prospect of flights with fish cargo to Kansas City later on. Also, as business is good, Hadden is now having a larger plane constructed, with the possibility of more freighters going into service as business demands. Hadden hopes to have the larger plane in service the latter part of October.

Use of Drift Nets Permitted

Abolition of warden supervision and use of nets permitted commercial fishermen, prior to the en-

actment of the first uniform Wisconsin-Minnesota fishing laws for Mississippi River boundary waters in 1933, were proposed to the Wisconsin Conservation Commission at a public hearing in La Crosse.

A proposal to give the commercial fishermen frame, buffalo and bait nets and drift seines, paying the State 10 percent of their gross revenue from the sale of fish, continuing strict warden supervision, with the State prohibiting the use of any twine proving detrimental to game fish was defeated by an overwhelming vote.

The group then voted to give the net men the use of drift nets to catch lake sturgeon for one year without warden supervision. Use of buffalo, frame, bait and drift nets as well as seines and gill twine was voted with the added provision that the commercial men be privileged to take catfish 15 inches or more in length without a daily bag limit.

The nets should conform to the old statutory provisions in force prior to the 1933 uniform law, it was voted. The hearing was conducted by Robert Gray, Madison, Superintendent of Commercial Fisheries for the Commission.

New Fishing Boat

The firm of Stover and Meisenheimer of Pentwater, Mich., have laid the keel for a new 40 ft. fishing boat to replace the tug *Peggie-Marie*, now used in operations out of that port. The new tug is being built at Pentwater and may be completed in time for late Fall fishing. It will be equipped with a new Pentwater net lifter.

Move to Lake Huron

The fishing tugs *Jackie* and *Seabird* operated out of Charlevoix, Michigan, have been moved around the State to Alpena, where they will fish during the early Fall season. Both boats are owned by John Cross. Max Fraelick is sailing the *Seabird* while it is in use on Lake Huron.

Capt. Martin Christiansen

Capt. Martin Christiansen of Duluth died on September 17. Captain Christiansen operated the *Winyah* between Duluth and Isle Royale, and for many years was the first captain to begin the navigation season at the Head of the Lakes. Coming to Duluth in 1888, he began sailing the Great Lakes in 1892 and since 1906 has operated his own supply and fish boat along the north shore.

Captain Christiansen was president and director of several firms here, including H. Christiansen & Son, the Duluth-Chicago Freight Lines, Duluth Truck Terminal Co., and the Marine Iron & Shipbuilding Co.

He came to this country in 1879 from Norway with his parents, and lived in Wisconsin, where they settled, until coming to Duluth.



"Plymouth," owned by R. O'Brien & Co., and "Neptune," owned by Haskins Fish Co., both of Boston. These two trawlers are equipped with Willard batteries and use Shell Dieseline.

Fulton Market Wholesale Prices

Species	Sept. 1-9	Sept. 10-16	Sept. 17-23	Sept. 24-30
Bluefish	.06-.32	.04-.23	.03-.22	.03-.27
Bonito	.04-.12	.03-.12	.04-.10	.02-.10
Butterfish	.01-.08	.01-.08	.02-.09	.02-.15
Codfish, steak	.04-.14	.05 1/2-.11 1/2	.06-.11	.05-.11
Codfish, market	.04-.08	.01-.06	.03-.06 1/2	.03 1/2-.05
Croakers	.05-.07	.01 1/2-.07	.04-.07	.02-.06
Dabs	.10-.10	.02-.05	.03-.07	...
Eels	.05-.12 1/2	.05-.15	.03-.14	.05-.15
Flounders	.05-.14	.01-.12	.02-.12	.01 1/4-.09
Fluke	.05-.18	.02-.14	.03-.15	.02-.14
Haddock	.02 1/4-.07	.01-.05	.01 1/2-.05 1/2	.02-.06
Halibut	.12 1/2-.18	.13-.20	.12 1/2-.18	.12-.20
Kingfish	.02-.12 1/2	.02-.12 1/2	.12 1/2-.12 1/2	.03-.12 1/2
Mackerel	.03-.20	.03-.14	.02-.15	.04-.11
Mullet	.08-.08	.06-.07	.03 1/2-.07	...
Pollock	.03-.07	.02 1/2-.04	.01 1/2-.05	.01 1/2-.04 1/2
Pompano	.30-.35	.04-.40	.35-.40	.04-.40
Salmon, Pacific	.12 1/2-.22	.12 1/2-.22	.15-.20	.16-.20
Scup	.02-.09	.02 1/2-.07	.02-.06	.02 1/2-.09
Sea bass	.03-.20	.02-.16	.03-.15	.02-.14
Sea robins	.02-.02	...	.02-.02	.02-.02
Sea trout, gray	.02-.25	.02-.22	.03-.20	.02-.20
Silversides	1.00-1.25	1.50-1.50	1.00-1.50	1.00-1.50
Red snapper	.15-.16	.15-.15	...	.16-.16
Sole, gray	.09-.12 1/2	.04-.10	.05-.10	.05-.09
Sole, lemon	.10-.14	.06 1/2-.12	.10-.10	.07-.09
Spanish mackerel	...	...	...	.10-.10
Spot(Lafayette)	.01 1/2-.06	.03-.06	.04-.06	.03 1/2-.04
Striped bass	.20-.25	.12 1/2-.23	.15-.22	.16-.20
Swordfish	.20-.35	.18-.32	.18-.23	.18-.25
Tuna	.03-.10	.04-.10	.04-.12	.06-.10
Whiting	.05-.14	.01 1/2-.05	.01 1/2-.10	.01-.10
Yellowtails	.03-.09	.01-.05	.01 1/2-.03 1/2	.02-.06
Clams, hard	.75-5.00	.50-2.25	.75-2.25	1.00-4.50
Clams, soft	1.00-2.50	1.50-2.50	1.50-2.50	1.50-2.50
Conchs	1.25-2.50	1.25-1.50	...	.75-2.00
Crabs, hard	.50-1.50	.75-1.75	.75-1.50	.75-2.00
Crabs, soft	.10-1.35	.15-6.00	.20-1.00	.15-.75
Crab meat	.20-.60	.20-.55	.25-.60	.25-.60
Lobsters	.22-.42	.15-.39	.10-.22	.16-.40
Mussels	1.00-1.25	.75-1.00	...	.50-1.50
Scallops, bay	2.35-3.25	2.00-2.50	2.50-3.25	2.50-3.25
Scallops, sea	1.40-1.75	1.35-1.35	1.40-1.60	1.40-1.45
Shrimp	.04-.18	.04-15 1/2	.05-.19	.03-.18
Squid	.06-.06	.06-.06	.05-.15	.05-.11
Frogs legs	.30-.50	.40-.50	.45-.60	.45-.55

Boston Fish Pier Landings for August

(Hailing fares. Figure after name indicates number of trips)	
Adventure (4)	352,000
Adventure II (2)	124,000
American (1)	50,000
Angie & Vence (1)	38,000
Arlington (3)	306,000
Atlantic (3)	295,000
Bettina (2)	84,000
Billow (2)	171,000
Bittern (2)	228,000
Boston College (2)	122,500
Breaker (2)	163,000
Breeze (2)	176,000
Brookline (4)	420,200
Cambridge (3)	322,000
Comber (3)	463,000
Chas. M. Fauci III (6)	97,200
Crest (2)	281,000
Delaware (4)	406,000
Dorchester (3)	332,000
Ebb (2)	241,000
Elk (1)	71,000
Fabia (1)	88,000
Famiglia (3)	79,800
Flow (3)	497,500
Foam (3)	578,000
Fordham (2)	178,000
Frances C. Denehy (1)	53,000
Gale (3)	298,000
Georgetown (4)	296,300
Geraldine & Phyllis (3)	214,000
Gert. L. Thebaud (2)	174,000
Gertrude Parker (3)	174,000
Gossoon (3)	212,000
Grand Marshall (3)	202,000
Hekla (2)	287,000
Helen M. (2)	70,000
Holy Cross (2)	131,000
Illinois (3)	336,000
Jeanne d'Arc (2)	216,000
Killarney (3)	271,000
Kittiwake (3)	386,000
Lark (3)	187,000
Lark (2)	221,000
Maine (2)	220,000
Marjorie Parker (3)	91,000
Mary E. O'Hara (2)	120,000
Neptune (4)	377,000
Newton (3)	281,000
Notre Dame (4)	421,000
Ocean (3)	309,000
Olympia (2)	57,000
Plymouth (2)	180,000
Pollyanna (2)	107,000
Quincy (3)	271,500
Raymonde (1)	53,000
Ripple (2)	325,000
Rita B. (4)	306,500
Saint Joseph (2)	45,000
Sea (3)	410,000
Shamrock (3)	236,000
Shawmut (2)	180,000
Spray (3)	501,000
Swell (3)	363,000
Thomas Whalen (4)	353,000
Tide (3)	361,000
Trimount (2)	134,000
Triton (4)	348,000
Venture II (2)	128,000
Villanova (3)	366,000
Wave (3)	290,500
Wm. J. O'Brien (3)	275,000
Wm. L. Putnam (3)	179,000
Winchester (3)	380,000
Wintrop (3)	269,500
Yankee (1)	62,000

South Fish Co. Moves to New Market

The South Fish Co., Inc., Samuel H. Traeger, President, moved on October 2 into the new Fulton Fish Market Building, New York, and occupy Stand No. 31. This company is a direct receiver of fresh and frozen halibut and salmon, and a wholesale dealer in all kinds of fish.



The new Halifax schooner "Brenda Marguerite", Capt. Angus Tanner, with crew ready for maiden voyage. She is 142 ft. in length, and is powered with a 260 hp. Cooper-Bessemer engine. Rope is from Consumers Cordage Co., which is associated with Plymouth Cordage Co. The vessel is fueled by Imperial Oil Co., Ltd., Essomarine Canadian affiliate.



Essomarine Lubricants are distributed by these major oil companies: Standard Oil Company of New Jersey—Colonial Beacon Oil Company—Standard Oil Company of Pennsylvania—Standard Oil Company of Louisiana—Standard Oil Company (Inc. in Kentucky)—Standard Oil Company (Ohio)—Humble Oil & Refining Company—Imperial Oil, Limited (In Canada). Direct inquiries to Essomarine, 26 Broadway, New York City.

J. C. ABBOTT superintends a shrimp fleet of fifty-five trawlers...boats that average 15 hours' work a day the year 'round. In his opinion, the *exclusive* use of Essomarine fuels and lubricants in these shrimp-boats has kept their engines in consistently A-1 working order for the past two years!

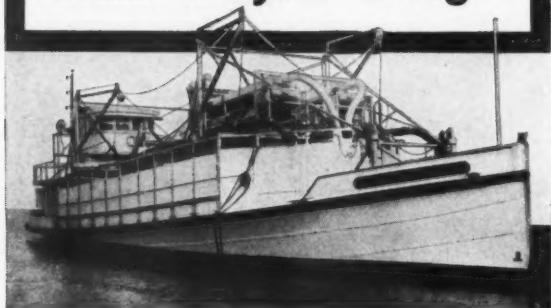
Nor is this an isolated case. Thousands of commercial fishermen along the Atlantic Coast

tell of similar experiences where Essomarine fuels and lubricants have maintained trouble-free records despite heavy working schedules and bad weather conditions.

If you haven't yet tried out this first-rate combination of Essomarine fuel and Essomarine lubricating oil, make the Essomarine Sign your next port of call. It won't belong before you'll endorse them as heartily yourself!

F-M DIESEL CASE HISTORIES

F-M Diesels Replace Steam on Oyster Dredger



When the owners of the Oyster Bay Oyster Co., Oyster Bay, L. I., purchased the steel passenger steamer *Sea Gate*, they transformed her into a revolutionary new type of oyster dredger. Fairbanks-Morse Diesels had rendered such outstanding service on their oyster boats *Gloria B.*, *Waldron B.*, and *W. H. Hoy*, as well as their yacht *Sonse*, that the ship's steam equipment was replaced with a 500-hp. Fairbanks-Morse Model 37 Diesel propulsion engine and two 120-hp. Fairbanks-Morse Model 35 Diesel auxiliary engines.

The renovated vessel—rechristened the *Seawanhaka*—has been the envy of many oyster fishermen on Long Island Sound since she was launched last summer. As the nozzles of two huge centrifugal pumps—coupled to the F-M auxiliary Diesels—are dragged over the ocean floor, they "vacuum clean" the oyster beds. Oysters are carried through the pumps to a screen, from which they are discharged to a conveyor belt and into oyster bins.

Fairbanks-Morse Marine Diesels are made in a wide range of sizes for dependable, economical use in practically all types of fishing boats. For complete information, write Fairbanks, Morse & Co., Dept. 6, 600 S. Michigan Ave., Chicago, Ill. Branches with service stations in principal ports.



Engine room of the *Seawanhaka*. F-M Model 35 auxiliary Diesels in foreground, Model 37 propulsion Diesel in rear.

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DIESEL ENGINES
PUMPS
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RAILROAD EQUIPMENT

WATER SYSTEMS
WASHERS IRONERS
FARM EQUIPMENT
STORES
AIR CONDITIONERS



Diesels

Lunenburg

Nova Scotia Fisheries Exhibition Cancelled

By H. R. Arenburg

THE Executive Committee of the Nova Scotia Fisheries Exhibition decided that, due to the unsettled conditions caused by the outbreak of war in Europe, there would be no Fisheries Exhibition held this year. Preparations had gone forward and the plans as worked out promised an exceptionally fine show for this year. Work had already been started on the preparation of the booth structures in the buildings but as the militia was desirous of using the buildings as living quarters for a portion of the local regiment, for a short period, the plans were cancelled and the exhibition called off.

Salt Fishing Over Until Spring

September marks the conclusion of the salt fishing season of the Lunenburg fleet, and by the end of the month, practically all the schooners engaged in this portion of the industry will have returned to their home ports with their final catches and will either lay up during the Winter months or be cleaned, painted and refitted to engage in the fresh fishing industry until the salt fishing season again opens next Spring. The following schooners of the fleet have arrived in port this month from the Grand Banks and discharged their fares among the local fish curers for preparation for the export market:

Schooner	Captain	Catch
C. A. Anderson	Joseph Wentzell	2300 quintals
Harry W. Adams	Arnold Parks	2300 "
Delawana II	Fred Deal	2100 "
Haligonian	Daniel Mosher	2100 "
Gloria May	Urban Corkum	2000 "
Howard Donald	Guy Tanner	2000 "
Mavis Barbara	Henry Creaser	2000 "
Pan American	Ellison Creaser	2000 "
Ronald George	Daniel Romkey	1900 "
E. F. Zwicker	Calvin Silver	1600 "
Sir Ernest Petter	Napean Crouse	1600 "
Mary Hirtle	Moyle Crouse	1200 "
Cachetot III	Gordon Mosher	1100 "
Petite	Captain Evans	1200 "

Fresh Fishing

The fresh fishing fleet out of Lunenburg during the Summer and Fall months is not very large as this is the season of least demand for fresh fish products and most of the schooners in the Lunenburg Fishing Fleet are engaged in the salt fishing portion of the industry. Among the landings from the fresh fishermen during the past month are the following:

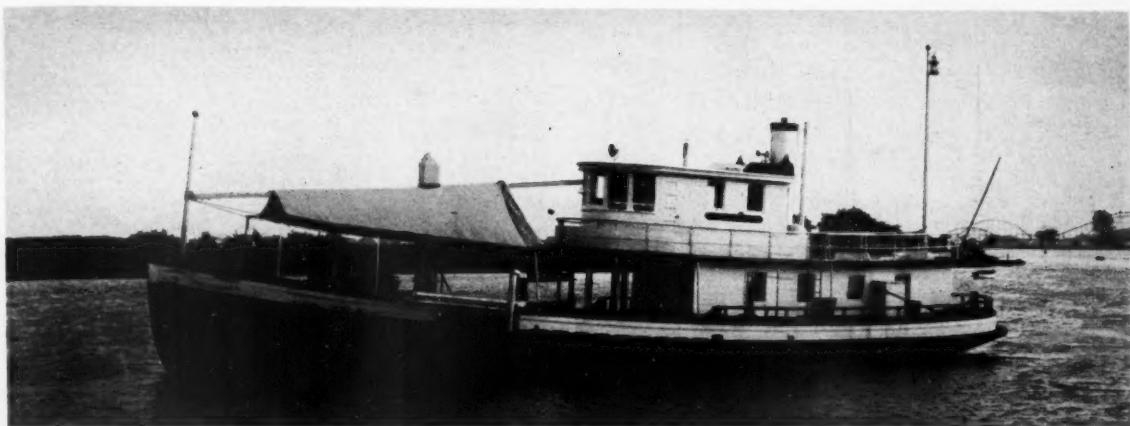
Schooner	Captain	Catch
R. B. Bennett	Elbourne Demone	255,000 pounds fresh fish
Marshall Frank	Frank Risser	145,000 "
Mahaska	Orlando Lace	70,000 " halibut 18 swordfish
Christine M.	John Ball	20,000 pounds halibut 50 swordfish

Building New Schooner

Work is progressing favorably on a new schooner now in process of building in the shipyards of Smith and Rhuland. The new schooner will be ready for launching some time next month.

Fall Run of Mackerel Large

The Fall run of mackerel on the coast has been quite large, and the shore fishermen have landed a considerable quantity. Weather conditions have been very good, and there has been no loss of equipment through storms. The prevailing price at the present time is not an inducement for the shore fishermen but indications are that the prices will increase within a short time.



The oyster boat "M. P. McDonagh", owned by the Greenport Oyster Co., Greenport, N. Y., is powered with a 4-cylinder, 9½ x 14, Wolverine Diesel engine. This boat is 73.8 x 20.6 x 6.6.

All of our oyster boat owners, as well as fishing boat owners, are pleased with their Wolverines. You will be, too.

Catalogue No. 135 Upon Request

WOLVERINE MOTOR WORKS Inc.

Foot of Union Avenue

BRIDGEPORT, CONN.

WOLVERINE DIESELS

New Brunswick Sardine Packers May Operate All Winter

By C. A. Dixon

DESPITE the fact that the sardine packers of New Brunswick and Eastern Maine enjoyed a record season for the Summer period which normally would have caused the early shutting down of the various plants engaged in the canning of sardines, everything is booming in the industry as October makes its appearance. There exists the possibility that packing operations on a major scale will continue until the end of the season in the Maine area and possibly all Winter on the Canadian side of the line. This is indeed good news for all concerned, but especially for fishermen along the coast who have sold all the fish they could catch ever since Spring, or, to be exact, ever since the beginning of 1939. Prospects for continued record sales are bright and no person engaged in the sardine weir fishing business has any complaint to make regarding the demand for their product. At one time just before war broke out between the Allies and Germany, the Maine packers talked of an early closing. Orders for canned goods poured in after war broke out with the consequence that all the factorymen stepped up production. Fish have been scarcer since September came in, but toward the last of the month there have been signs of better fishing, although the total catches will not be as steady and productive as in the Summer due to Fall breezes and stormy weather setting in. It is expected, however, that much more money will yet be made by fishermen, boatmen, scalers, and factory workers—and of course the factory owners themselves.

Pollock Expected to Bring Good Prices

Campobello handline fishermen have been getting fairly good catches of pollock at Molasses Rock, Wolves Island, N. B., but very poor fishing in the Quoddy River district. It

is too early, however, to predict accurately the probable Fall catch of pollock in the latter named place or at Grand Manan. Slack salted fish are in keen demand in local markets as dealers envisage the failure of the Fall fishing in Southern New Brunswick. Those who are lucky enough to get even sub-normal quantities of pollock under salt this year will realize handsome returns for their product before the Winter is over. In the last war pollock sold in Quoddy districts for \$10.00 a quintal.

Lobster Bait Prices Low

Vessels from Nova Scotia have been buying lobster bait at Deer Island and other places in Southern New Brunswick, but the demand for bait this year is away below that of other seasons, due to the fact that herring have been caught in fairly good quantities in the St. Mary's Bay fishing area, it is said. The baiters who have been in New Brunswick buying cargoes of herring have paid only \$3.00 a hogshead.

Question on the Exporting of Sardines

A new phase in respect to the export of sardine herring and fish from Canada to the United States is, at the time of writing, causing considerable perplexity among fishermen and others as to the probable outcome of the same. It is a Canadian government decree that all exports to the United States paid for in American funds, currency or checks must have such payments made through a chartered bank in Canada where the seller will be paid Canadian money, with the prevailing rate of premium on the same added. The question fishermen are asking is whether they shall have to go to their nearest bank for the pay for their fish, which in many cases will mean considerable expense to them, or whether Canadian checks will be mailed out to them by such banks. In reality, the boatmen who purchase the sardines will be the exporters instead of the weirmen who sell the fish, and will have to make out export papers at the Canadian customs, declaring the quantity and value of each cargo purchased. It has been suggested that henceforth the buyers of sardine herring will have to pay a stated price per hogshead at the weirs under the new arrangement, but some people seem to think that this will not be obligatory.



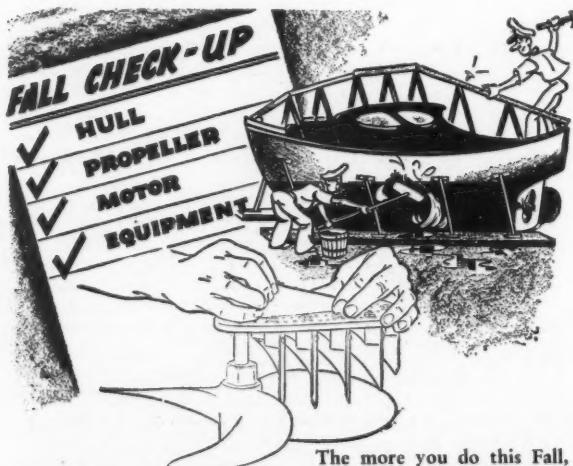
Here Are
BUDA-LANOVA
Advantages Worth
Having in Your
Fish Boat!

When you go out to sea day after day you need a rugged, reliable engine—an engine you can depend on to take you out and bring you back safely—and economically. And that's exactly the kind of service you get with Buda-Lanova Diesels. These dependable Diesels are backed by 13 years of Diesel Marine Experience, and have been used for years by the U.S. Navy, the Coast Guard, yachtsmen, and hundreds of experienced fishermen like yourself. Here are some of the reasons why Buda-Lanova Diesels have gained such an enviable reputation for dependable, economical, trouble-free service:

THE BUDA CO., Marine Div. H. - Harvey (Chicago Suburb) Ill.

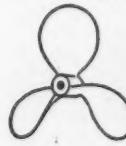
BUDA MARINE ENGINES

DIESEL AND GASOLINE MODELS—20 to 200 H.P.



The more you do this Fall, the earlier you sail next Spring. Now is the time for a "factory reconditioning" job on a damaged wheel. Hyde will straighten, check, weld in nicks, rebalance and refinish your old wheel like new, at a surprisingly little cost. Write for particulars or see your local Hyde Dealer.

HYDE WINDLASS COMPANY, Bath, Maine
Dealers everywhere carry ample stocks

 **HYDE**
PROPELLERS 

Send for this free booklet "Propeller Efficiency." It will tell you why Hyde Propellers often increase the speed of a boat and always get home safely.



Delivery of a Model MRA-4 62 hp. four-cylinder Superior Diesel to Capt. Gustave Hogstrom of Freeport, L. I., for installation in his dragger "Delphine." Left to right: Sam Hicks of the Superior New York office, Tom McElroy and L. H. Earle of the Superior Philadelphia plant and Capt. Hogstrom.

Long Island Report on Fisheries Investigation Ready

By C. A. Horton

A REPORT of the investigations of Long Island marine fisheries resources, conducted jointly by the Bureau of Biological Survey of the Conservation Department and the U. S. Bureau of Fisheries during 1938, is now available in book form at \$1.15. The investigations carried on in the salt waters of Long Island included studies of the commercial fisheries resources and of the sport fishing business. Catch records of the commercial fisheries indicate that the marine waters of Long Island produced about 50 million pounds. This poundage included several species, the most abundant of which were the whiting, butterfish and menhaden. The South ocean area, with a catch of about 10 million pounds, exceeded all other regions in the Long Island district. This report will be followed by Part II, dealing with the studies of eggs and young stages, and of the distribution and abundance of the numerous fish species in the shore zone.

Ask For Funds to Continue Survey

Alfred Tucker, Manager of the Long Island Fishermen's Protective Association, appealed to the Board of Supervisors in session on September 28th to include in the 1940 County budget an appropriation of \$2,250.00 for a continuation of the survey of various species of fish inhabiting Suffolk waters. Mr. Tucker, who lives in West Sayville, with the assistance of Supervisor Perry B. Duryea, a commercial fisherman from East Hampton, was successful in having the Board of Supervisors appropriate \$4,500.00 at the last April meeting for the survey, which is being conducted under the supervision of the U. S. Bureau of Fisheries.

Scallops

Steps are being taken by the baymen to arrange for planting sea scallops at Peaks Neck, which they have found to be a good place for scallops to take on a good growth.

Block Island Boat Rebuilt

Capt. Simon Littlefield's 32-foot boat, *Claudia*, which was nearly destroyed by fire last Spring, has been rebuilt during the Summer months by Capt. Littlefield. The Red Wing motor was rebuilt at the Marine Railway. The boat was launched the last of September, and Capt. Littlefield is now rigging up for codfishing, that being the main activity at the Island now. Although fish are scarce, they have been bringing the handliners up to 12 cents per pound for steak cod in New York, and have been returning shippers up to \$17 per barrel.

Production of Packaged Fish Increased in 1938

THE production of fresh and frozen packaged fish at primary producing plants in the United States, exclusive of the State of California, amounted to 117,151,000 pounds, valued at \$10,838,000 in 1938. This production represents an increase of 7 percent in volume and a decrease of 7 percent in value as compared with the production in 1937.

By far the most important species packaged during 1938 was haddock, which alone amounted to 40,909,000 pounds, valued at \$3,372,000. Second in importance was cod, with 21,057,000 pounds, valued at \$2,009,000. Other species, the production of which exceeded one million pounds, were rosefish, pollock, flounders, blue pike, hake, whiting, sauger, and cusk.

Of the packaged fish produced during the year, frozen fillets contributed 50 percent; fresh fillets, 47 percent; and fresh sticks, 1 percent; while fresh and frozen steaks and fresh pan-dressed fish together amounted to 2 percent.

Covic Diesel, Small and Light

THE Covic Diesel is of exceptionally small size, with overall length, including reverse gear, of 38 in., height of 19½ in. and width of 30½ in. The model exhibited at the last New York Motor Boat Show, complete with electric starter and generator, reduction gear, and fresh water cooling system, weighs less than 450 pounds. This gives a ratio of only 22½ pounds to the horsepower for a complete Marine Diesel engine.

Covic Diesels are in use as main power in boats up to 35 ft. in single screw installations, and to 50 ft. with twin engines. Many are installed as auxiliary power.

Types include the T-2-M, the 2-cylinder, 20 hp. hand-starting, marine model; T-2-ME, the same engine equipped with starter and generator; and T-2-GDC, a complete generator plant for marine service. All models are complete units with 2:1 or 3:1 reduction gears, fuel oil filters, full range governor, etc.

These engines are manufactured by the Northill Company, Inc., of Los Angeles.

Recent Chrysler Installations

WALTER H. Moreton Corp., of Boston, recently installed the following: A special heavy duty Chrysler Ace in a 32 x 11 x 4½ in. flounder dragger, owned by Warren R. Northrup of Peacedale, R. I. The motor is a 50 hp. at 550 rpm., 6 cylinder 3½ x 4¾, with a 3½ reduction gear, and a 3-blade 26-24 propeller.

Chrysler Crown in *Sea Buddy*, owned by John M. Hamilton of Orleans, Mass. The dimensions of this dragger are 37 x 13½ x 6; the engine is a 62 hp. at 550 rpm., with a 3½-1 reduction gear, and a 28-28 propeller.

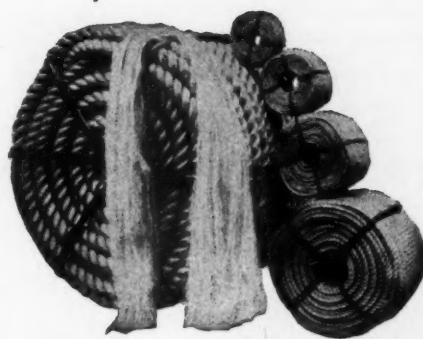
A similar engine was installed in the 40 ft. dragger belonging to Earl M. Eldridge of Orleans, and in the *Mona B.* owned by Stanley Bowman, of Falmouth.

Herbert I. Brown

HERBERT I. Brown, East Haven, Conn., owner and operator of F. F. Brown & Co., specializing in the propagation and growing of oysters for bedding purposes, and operating grounds in Long Island Sound at New Haven and Bridgeport, died September 25th, after a short illness. He was 59 years old.

Born in New Haven, he received his early education there. After serving as a civil engineer with the United States Army Engineers, he left that service to join his father in the oyster business in 1910. Following his father's death, he became head of this firm and operated it until the time of his passing. A prominent member of the oyster industry, he served as treasurer of the Oyster Growers and Dealers Association of North America from 1925 until 1938, when he was relieved because of ill health. He was a member of the National Shell Fisheries Association, and has been treasurer of the Connecticut Oyster Growers Association for the past twenty-five years. He was a member of Adelphi Lodge, F. & A. M.

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HOME BETTER
PURE MANILA



"There is no better rope"

New Bedford Cordage Co.

General Offices: 233 Broadway, N. Y. C.

Boston: 10 High St. Chicago: 230 W. Huron St.

Mills: New Bedford, Mass.

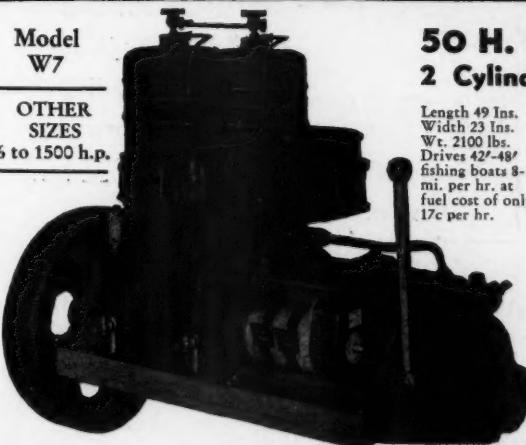
BOLINDERS DIESEL ENGINES

Model
W7

OTHER
SIZES
6 to 1500 h.p.

50 H. P.
2 Cylinder

Length 49 Ins.
Width 23 Ins.
Wt. 2100 lbs.
Drives 42'-48'
fishing boats 8-10
mi. per hr. at
fuel cost of only
17c per hr.



Now Is The Time To Check Up



Fall, that's the time to check up on your engine before Winter sets in. Check what your engine has cost against how much a Bolinders will save. You'll be surprised. Bolinders and Atlas Polar Diesels are built in sizes from 6 to 500 hp. and for any service. Whether you need a small one for electric light or a big one for main propulsion, there's a Bolinders to fit your needs. Write or call.

BOLINDERS COMPANY, INC.

Office and Showroom: 33 RECTOR STREET, NEW YORK, N. Y.

**IS YOUR PAINT JOB READY
FOR WINTER PUNISHMENT?**

The toughest weather of the year lies ahead. Check up on the condition of your paint job now. Touch up all bruised and chafed spots and go over all worn surfaces. NOW with SMITH'S SHIP & BOAT—the fishing boat paint that can take it!

Write for color card and leaflet

EDWARD SMITH & CO., Inc.
Established 1827
11 East 36th St. New York City

MARINE
FINISHES
EXCLUSIVELY



**SMITH
SHIP AND BOAT PAINTS**



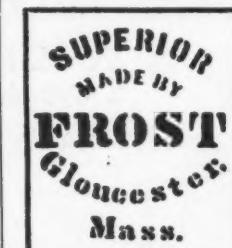
For the fifth time

**ADMIRAL
BYRD**

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**PLYMOUTH
MANILA ROPE**

"The Rope You Can Trust"

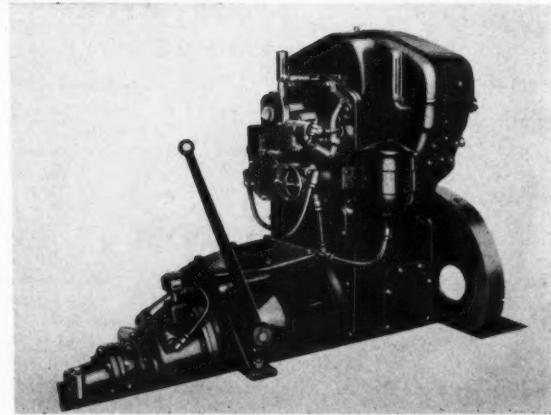


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"SUPERIOR"
OIL CLOTHING**

A first quality garment made to meet the requirements and approval of the fishermen.

Manufactured by

D. O. FROST CORPORATION
Factory and Office, 5-7-9-11 Wharf St.
GLOUCESTER MASS.



Fairbanks-Morse Model 45-A Marine Diesel engine

**Fairbanks-Morse Builds
Small V-Type Diesel**

A LONG-FELT need for a small Diesel engine for auxiliary service on either steam or Diesel propelled boats is now fulfilled by the new Fairbanks-Morse Model 45-A Marine Diesel. The engine is built in one and two cylinder sizes to give 5 and 10 horsepower capacity respectively. The Model 45-A is a V-type engine and is available for propulsion service in small boats as well as for auxiliary drive.

This engine with a 3½-inch bore and 4¾ inch stroke operates at 1200 rpm. and is conservatively rated as to horsepower and piston speed. The F-M Model 45-A engine is a four-cycle, solid injection, full Diesel type, precision built, with full pressure lubrication. One of the many features of this engine is the fact that it can readily be started by hand.

For Marine propulsion the engine is arranged with a Joes reverse gear and the flywheel is placed forward. For auxiliary generating service, the engine is direct connected to an F-M Marine type generator forming a compact unit which is mounted on a substantial cast-iron base.

The F-M Model 45-A Diesel combines the reliability and economy of operation and other advantages usually found only in larger Diesel engines.

**Express Rates Reduced for Bulk
Oyster Shipments**

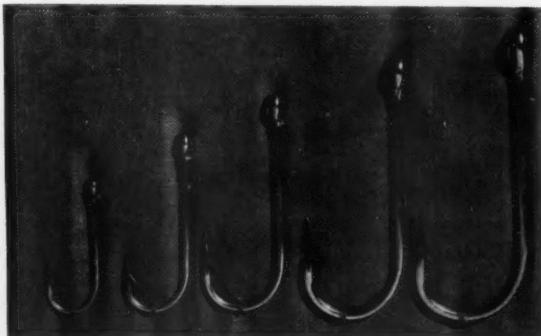
REDUCED rates for shipments of shucked oysters in consignments of 20 gallons and less than 40 gallons, and still greater reductions for quantities of 40 gallons or more, were announced today by R. S. Wheeler, general traffic manager of the Railway Express Agency. The new rates, which became effective on October 2, also apply to clams and scallops, and apply from shipping points in fourteen states along the Eastern seaboard.

The following specific instance of rates for shipment from Baltimore, Md., to Dallas, Tex., this season and last, shows how the new rates compare with the old and how they work out in practice:

Up to but not including 20 gallons, shipments will be rated at \$3.87 per hundred pounds. From 20 to 39 gallons, the rate will be \$3.52, and for 40 gallons and upward, \$3.17 per hundred pounds. These three rates are respectively 55, 50 and 45 percent of the regular first-class express rates. Last season the rate for the same territory was \$3.82 up to 50 gallons, and \$3.20 for upwards of that quantity.

Producing points provided for in the new tariff are in the following states: Connecticut, Delaware, Maine, Maryland, Massachusetts, New Jersey, New York, North Carolina, Rhode Island, Virginia, and the District of Columbia. Destinations to which shipments are to be made under the tariff extend as far west as the Rockies.

TANGLEFIN NETTING
 "CATCHES MORE FISH"
 LINEN & COTTON GILL NETTING
 SEINE, POUND & TRAP NETTING
LUDLOW MANUFACTURING & SALES CO.,
 NATIONAL NET & TWINE DIVISION
 211 CONGRESS ST., BOSTON, MASS.



"Z" Nickel fish hooks, as announced by International Nickel Co.

New Alloy Makes New Development in Fish Hooks

THE corrosion resistance of a non-ferrous alloy has been combined with the high mechanical properties of some of the heat treated alloy steels to make possible a new development in fish hooks, it has been announced by the Nickel Bureau.

"Z" Nickel, the new heat treatable nickel alloy containing approximately 98 percent pure nickel, has been used for these hooks. They are rust proof, even in salt water, and their mechanical properties after heat treating provide them with exceptional strength and stiffness without destroying required ductility.

At present the hooks have been produced entirely on an experimental basis, but their possibilities are being thoroughly investigated with an idea of beginning commercial production as soon as possible.

FOR SALE

Fairbanks-Morse Engine

Fairbanks-Morse Model 35B 75 hp. at 400 rpm., 3 cylinder, $8\frac{1}{2}$ " bore, $10\frac{1}{2}$ " stroke, full Diesel Port engine. In excellent running order. Price \$1,250.00. Notify A. J. Hamm, 35 Middle St., West St. John, N. B.

Atlas Engine

One 80 hp. Atlas Imperial engine. In good condition. Price \$2,500.00. Hathaway Machinery Co., Fairhaven, Mass.

Suits of Sails

Two suits of sails from 98 ft. schooner yacht. Frank Upson, Sail Maker, New Haven, Conn.

16 Ft. Catboat

Cat boat 16 ft. All equipped, brand new. \$700. John Dexter, East Mattapoisett, Mass.

OUR NEW IMPROVED LINE OF SHELL FISH KNIVES

Forged stainless steel. Handle and blade made in one piece. Rust and germ proof. Approved by State and Federal authorities.



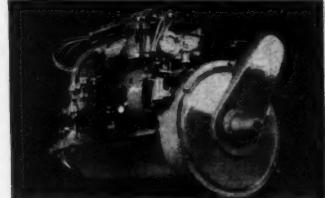
NO. 6, SCALLOP KNIFE: Length Blade, 2"

Three styles of Oyster Knife, two of Clam Knife and one of Crabmeat Knife. A Murphy Knife has a long life. Ask your dealer for the Murphy line or order direct from

ROBERT MURPHY'S SONS CO.
 Ayer, Mass. Est. 1850



2 to
150 H. P.



The Palmer Line includes a full range of engines from 2 to 150 horse-power. All are sturdy, dependable, accessible and economical. Send for catalog.

PALMER BROS. ENGINES, INC.
COS COB, CONNECTICUT
 Export Office: 44 WHITEHALL ST., N. Y.
 Sales Office: 102 E. 25th St., New York
 Dealers in principal coastal cities

PALMER ENGINES

FLAKE SIZE CHANGED AT WILL

THE NEW CREASEY DOES IT

Turn a crank on a new "500-Line" Creasey Ice Breaker and change the size of flakes while the machine is running. Better size-control than ever before plus all the old reliability that made them say "A Creasey Never Wears Out." New Bulletin 113C shows sizes and net prices of models up to 50 tons per hour. Write for your copy.

GIFFORD WOOD COMPANY
 HUDSON, N. Y.



CREASEY ICE BREAKERS

JOHN G. ALDEN
 NAVAL ARCHITECT MARINE ENGINEER
 Specializing in Diesel vessel design
 131 STATE STREET BOSTON, MASS.

When You Ship FISH, LOBSTERS
 or SCALLOPS to the Boston Market
 FOR BEST RESULTS SHIP TO
R. S. HAMILTON COMPANY
 On the Boston Market over 30 Years
 17 Administration Building Fish Pier, Boston, Mass.



Hathaway Machinery Co.
 Original
 Flax Packed
STERN BEARINGS
Fairhaven, Mass.

The Linen Thread Co., Inc.
 Gold Medal Cotton Nets and Twines
 A. N. & T. Coy Linen Nets
 Manila Trawls, Burnham Lines

Sales Offices:
 New York Boston Gloucester Baltimore
 Chicago San Francisco

Where to Ship

These companies are in the market for fish and shellfish.

BOSTON, MASS.

R. S. Hamilton Co., 17 Administration Bldg., Fish Pier.

CHICAGO, ILL.

Booth Fisheries Corp., 309 West Jackson Blvd.
 J. A. Klaflin, 209 N. Union Ave.

NEW YORK, N. Y.

Beyer Fish Co., Fulton Fish Market.
 Chesebro Bros. & Robbins, 4 Fulton Market.
 John Dais Co., Fulton Market.
 Eastern Commission Co., 19 Fulton Market.
 International Fish Co., Inc., 111 Fulton Fish Market.
 Lester & Toner, Inc., Fulton Fish Market.
 South Fish Co., 112-113 Fulton Market.
 Frank W. Wilkisson, Inc., 16 Fulton Market.

PHILADELPHIA, PA.

C. E. Warner Co., Inc., 8 Dock St. Fish Market.

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Where-to-Buy Directory

Equipment, Gear, Supplies, Service

Companies whose names are starred (*) have display advertisements in this issue; see Index to Advertisers for page numbers.

ANCHORS

*Northill Co., Inc., 6824 McKinley Ave., Los Angeles, Calif.

BATTERIES

Dry Cell

"Eveready": National Carbon Co., Inc., 30 E. 42nd St., New York, N. Y.

Storage

Bowers Battery Mfg. Co., Inc., Reading, Pa.

Edison Storage Battery Co., West Orange, N. J.

**"Exide": Electric Storage Battery Co., Philadelphia, Pa.

Willard Storage Battery Co., Cleveland, Ohio.

BOAT EQUIPMENT & SUPPLIES

The E. J. Willis Co., 91 Chambers St., New York, N. Y.

CAN MANUFACTURERS

Continental Can Co., 100 E. 42nd St., New York, N. Y.

Crown Can Co., Philadelphia, Pa.

National Can Corporation, 110 E. 42nd St., New York, N. Y.

CLUTCHES

Kinney Mfg. Co., 3541 Washington St., Boston, Mass.

COLD STORAGE

Quaker City Cold Storage Co., Philadelphia, Pa.

Western Refrigerating Co., 18-20 E. Hubbard St., Chicago, Ill.

CORDAGE MANUFACTURERS

American Manufacturing Co., Noble and West Sts., Brooklyn, N. Y.

*Columbian Rope Co., Auburn, N. Y.

*New Bedford Cordage Co., 233 Broadway, New York, N. Y.

*Plymouth Cordage Co., North Plymouth, Mass.

*Wall Rope Works, 48 South St., New York.

Whitlock Cordage Co., 46 South St., New York, N. Y.

CYLINDER LINERS, PISTONS, RINGS

Hunt-Spiller Manufacturing Co., 383 Dorchester Ave., Boston, Mass.

DEPTH FINDERS

Submarine Signal Co., 160 State St., Boston, Mass.

DIESEL GENERATING SETS

*Bolinders Co., 33 Rector St., New York, N. Y.

Diesel Engine Sales & Engineering Corp., 263 Northern Ave., Boston, Mass.

ELECTRICAL EQUIPMENT

Diehl Manufacturing Co., 75 Kneeland St., Boston, Mass.

Electro Dynamic Works, Bayonne, N. J.

General Electric Co., Schenectady, N. Y.

ENGINE MANUFACTURERS

Diesel Engines

*Atlas Imperial Diesel Engine Co., 115 Broad St., New York, N. Y.

*Bolinders Co., 33 Rector St., New York, N. Y.

*The Buda Co., Harvey, Ill.

*Caterpillar Tractor Co., Peoria, Ill.

*Cooper-Bessemer Corp., Mount Vernon, O.

*Covic Diesel Div., Northill Co., Inc., 6826

McKinley Ave., Los Angeles, Calif.

Cummins Engine Co., Columbus, Ind.

Electric Boat Co., Groton, Conn.

*Fairbanks, Morse & Co., Chicago, Ill.

Gray Marine Motor Co., 646 Canton Ave., Detroit, Mich.

*The National Supply Co., Superior Diesels, Springfield, Ohio; Philadelphia, Pa.

Red Wing Motor Co., Red Wing, Minn.

Sterling Engine Co., 1270 Niagara St., Buffalo, N. Y.

*Wolverine Motor Works, Inc., 1 Union Ave., Bridgeport, Conn.

Worthington Pump & Machinery Corp., 421 Worthington Ave., Harrison, N. J.

Ford Conversions and Parts

Lehman Engineering Co., 972 Broad St., Newark, N. J.

*Palmer Bros. Engines, Inc., 14 Water St., Cos Cob, Conn.

Oesco Motors Corp., 3644 N. Lawrence St., Philadelphia, Pa.

Fuel Oil Engines

*Palmer Bros. Engines, Inc., 14 Water St., Cos Cob, Conn.

Red Wing Motor Co., Red Wing, Minn.

Gasoline Engines

*The Buda Co., Harvey, Ill.

Gray Marine Motor Co., 646 Canton Ave., Detroit, Mich.

*Palmer Bros. Engines, Inc., 14 Water St., Cos Cob, Conn.

Red Wing Motor Co., Red Wing, Minn.

Sterling Engine Co., 1270 Niagara St., Buffalo, N. Y.

*Wolverine Motor Works, Inc., 1 Union Ave., Bridgeport, Conn.

FISHING GEAR

The Great Grimsby Coal, Salt and Tanning Co., Ltd., Grimsby, England.

FISH SCALERS

Portable, Flexible Shaft
N. A. Strand & Co., 5001 N. Lincoln St., Chicago, Ill.

FLOAT DOPE

Wisconsin Paint Mfg. Co., Inc., 3710 North Richards St., Milwaukee, Wis.

FUEL INJECTION EQUIPMENT

American Bosch Corp., Springfield, Mass.

Hooks, Fish

"Mustad": Sidney R. Baxter & Co., 90 Commercial St., Boston, Mass.

ICE BREAKERS

**"Creasey": Gifford-Wood Co., Hudson, N. Y.

KNIVES (Shell Fish)

*Robert Murphy's Sons Co., Ayer, Mass.

NAUTICAL INSTRUMENTS

Kelvin-White Co., 90 State St., Boston, Mass.

NAVAL ARCHITECTS

*John G. Alden, 131 State St., Boston, Mass.

NETS AND NETTING

W. A. Augur, Inc., 35 Fulton St., New York, N. Y.

*The Linen Thread Co., Inc., 575 Atlantic Ave., Boston, Mass.

*National Net & Twine Co., 211 Congress St., Boston, Mass.

NET PRESERVATIVES

"Campbell's Copper Compound": International Chain & Mfg. Co., York, Pa.

OILS (Fuel, Lubricating, Gasoline)

**"Essomarine": Penola, Inc., 26 Broadway, New York, N. Y.

Shell Oil Co., Inc., 50 West 50th St., New York, N. Y.

Standard Oil Co. of Calif., Standard Oil Bldg., San Francisco, Calif.

OILED AND RUBBER CLOTHING

*D. O. Frost Corp., Gloucester, Mass.

Hodgman Rubber Co., Framingham, Mass.

M. L. Snyder & Son, 1812-72 E. Boston Ave., Philadelphia, Pa.

PAINTS

Pettit Paint Co., Belleville, N. J.

*Edw. Smith & Co., Long Island City, N. Y.

Tarr & Wonson, Ltd., Gloucester, Mass.

PROPELLERS

Columbian Bronze Corp., Freeport, N. Y.

*Hyde Windlass Co., Bath, Me.

Michigan Wheel Corp., Grand Rapids, Mich.

RADIO DIRECTION FINDERS

General Communication Co., 677 Beacon St., Boston, Mass.

RADIO TELEPHONES

Western Electric Co., 195 Broadway, New York, N. Y.

RANGES

"Shipmate": Stamford Foundry Co., Stamford, Conn.

REVERSE & REDUCTION GEARS

Snow & Petrelli Mfg. Co., 25 Fox St., New Haven, Conn.

Twin Disc Clutch Co., 1341 Racine St., Racine, Wis.

SHIPBUILDERS, BOATYARDS

The Charleston Shipbuilding & Drydock Co., Charleston, S. C.

Bethlehem Shipbuilding Corp., Bethlehem, Pa.

Portland Yacht Service, So. Portland, Me.

SHIP CHANDLERS

Sherman B. Ruth, Inc., Steamboat Wharf, Gloucester, Mass.

STEERING GEAR

The Edson Corp., 49-51 D St., South Boston, Mass.

STERN BEARINGS

Chapman Products, 166 Thames St., Newport, R. I.

*Hathaway Machinery Co., New Bedford, Mass.

TELEGRAPH SERVICE

Postal Telegraph, 67 Broad St., New York, N. Y.

THRUST BEARINGS

Kingsbury Machine Works, Inc., 4316-28 Tackawanna St., Frankford, Philadelphia, Pa.

TRANSPORTATION

Fish Forwarding Co., 151 South St., New York, N. Y.

TRAWLING EQUIPMENT

New England Trawler Equipment Co., National Docks, Lewis St., E. Boston, Mass.

WIRE BASKETS

Massillon Wire Basket Co., 204 4th St., N.W., Massillon, Ohio.

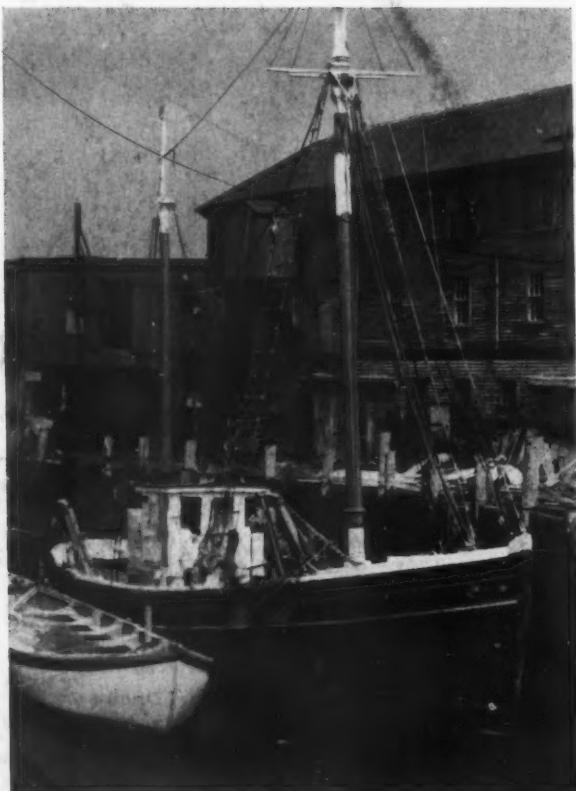
WIRE ROPE

*Bethlehem Steel Co., Bethlehem, Pa.

Very well Satisfied with the Performance of Atlas Diesel



Left to right: Capt. Peter Favazza and his four sons, Salvatore, Benny, Thomas, Pasquale.



The "St. Peter" of Gloucester, a dragger of 80,000 pounds capacity, owned by Capt. Peter Favazza and skippered by his son Salvatore, was powered by a 6 cylinder, 9" x 12" Atlas Diesel in January, 1936.

After three seasons' operation the owner says: "We have never had anything wrong with the engine, which held us in port. We have spent no money for replacement parts. Very few minor repairs have been necessary. When adjustments are necessary, the engine is easy to get at because the construction is not complicated. It handles fine and is easy to run. We think it is the best Diesel on the market."

The "St. Peter" is 83 ft. over all with 79 ft. on the water line; 19.2 ft. beam and 11 ft. draft. The Atlas Diesel swings a 54 x 40 Hyde propeller at 325 rpm., giving the boat a cruising speed of 9 mph. Fuel costs 6½c per gallon, and lubricating oil \$22 for a 30 gallon drum. The engine uses 8 gallons of fuel per hour and 2 gallons of lubricating oil every 24 hours of operation. The cost of running this 160 hp. Atlas Diesel is 58c per hour.

Another Atlas powered Gloucester Fisherman that has given a very good account of herself!

ATLAS IMPERIAL DIESEL ENGINE COMPANY

EASTERN DIVISION
115 Broad Street, New York, N. Y.

CENTRAL DIVISION

228 No. LaSalle Street, Chicago, Illinois

WESTERN DIVISION

1000 Nineteenth Avenue, Oakland, California

Gloucester — Providence — Philadelphia — Baltimore — Charleston — Miami — Jacksonville — Tarpon Springs — New Orleans
Fort Worth — Houston — El Paso — Terminal Island — Seattle — Portland — Vancouver — Ketchikan — Honolulu — Manila

ATLAS *Imperial* DIESEL ENGINES

Printed in U. S. A.
Lew A. Cummings Co.
Manchester, N. H.

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